Water Supply Outlook For Washington

SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

Cooperating with

DEPARTMENT OF ECOLOGY STATE OF WASHINGTON

AS OF
March 1, 1982

USDA SCS PORTLAND OR 1979

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

Cover: Lone Cone, near Norwood, Colorado, blanketed by its winter mantle of snow.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U. S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W, Calgary, Alberta T3C 1A6.

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WATER SUPPLY OUTLOOK FOR WASHINGTON

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

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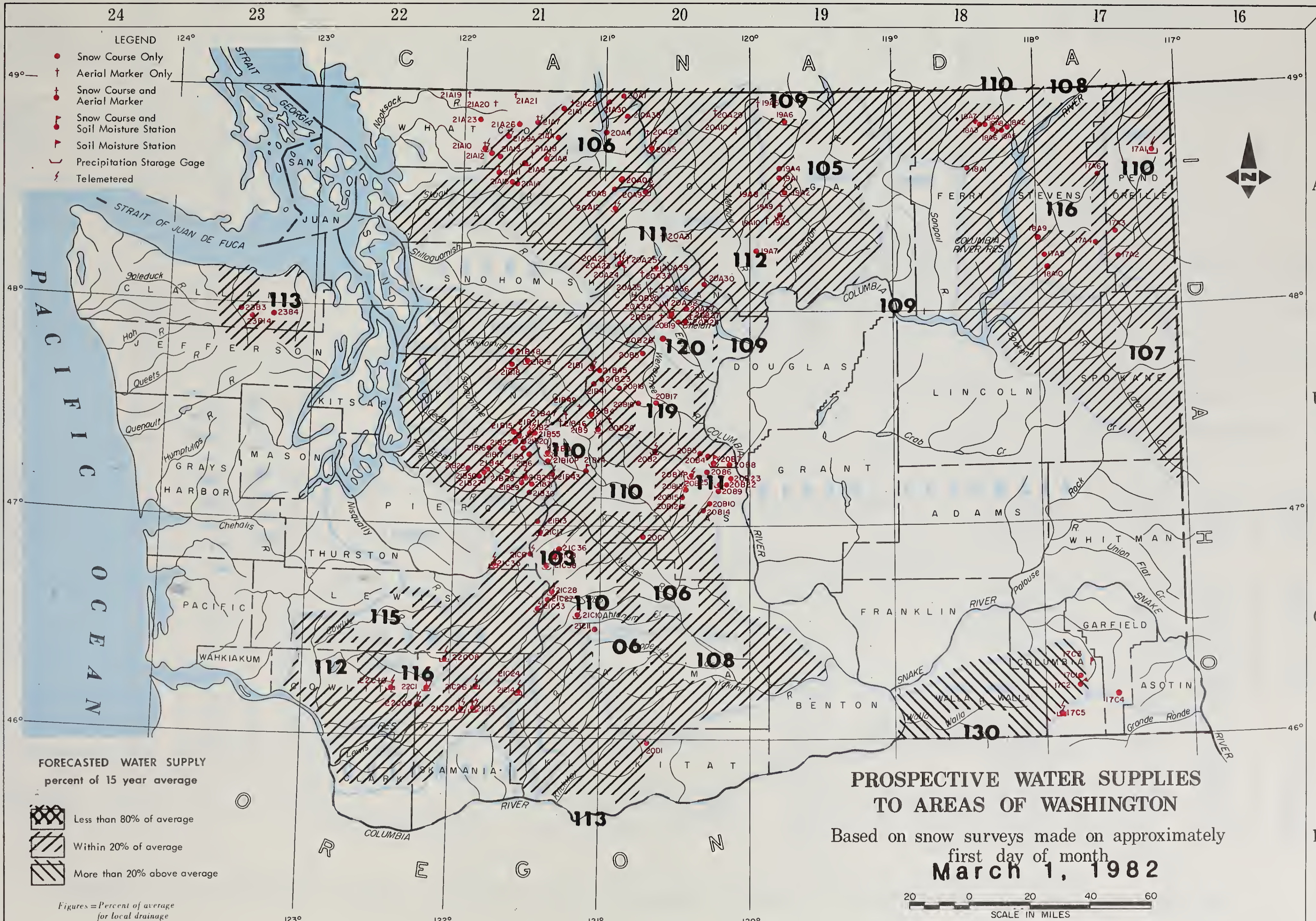

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UPPER COLUMBIA DRAINAGE

Pend Oreille River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Bayer Mauntain	17A2	7	31N	43E	5250
Bunchgrass Meadaw	17A1SP	24	37N	44E	5000
Winchester Creek	17A3	30	33N	43E	2970

Kettle River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Boulder Raad	18A2	36	39N	36E	1450
Butte Creek	18A3	28	39N	35E	4070
Cabin Creek	18A8	5	38N	36E	3170
Goat Creek	18A4	26	39N	35E	3595
Snaw Caps Creek	18A5	3	38N	36E	2150
Snaw Caps Trail	18A6	5	38N	36E	2720
Summit G. S.	18A7	20	39N	35E	4600

Colville River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Baird	17A6	19	36N	42E	3215
Carlsan	18A9	34	32N	38E	2885
Chewelah	17A4	11	32N	41E	4925
Stranger Mountain	17A5	26	31N	38E	4990
Taga	18A10	6	29N	38E	3370

Sanpail River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Sherman Creek Pass	18A1	19	36N	35E	5350

Okanogan River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Clark	19A8a	2	36N	23E	7000
Muckamuck	19A9a	20	36N	24E	6750
Muttan Creek No. 1	19A1	30	37N	24E	5700
Muttan Creek No. 2	19A4	19	37N	24E	6000
Paysayten	20A28a	32	40N	18E	4300
Rusty Creek	19A3P	18	35N	24E	4000
Salman Meadaws	19A2SP	33	37N	24E	4500
Starvatian Mtn.	19A10a	15	35N	23E	6750
Tauts Caulee	19A6	30	39N	25E	2845

Methaw River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Billy Goat Pass	20A10a	10	38N	20E	6400
Dollar Watch	20A29a	8	39N	20E	7000
Harts Pass	20A5SP	7	37N	18E	6500
Harseshae Basin	19A5a	15	40N	23E	7000
Laup Laup	19A7	36	34N	23E	4650

Chelan Lake Basin

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Claudy Pass	20A22a	12	31N	15E	6500
Greenwaod Flat	20A25a	3	31N	16E	3540
Little Meadaws	20A24a	8	31N	16E	5275
Lyman Lake	20A23SP	18	31N	16E	5900
Park Creek Ridge	20A12SP	18	34N	16E	4600
Rainy Pass	20A9SP	21	35N	17E	4780
Safety Harbor	20A30a	32	31N	20E	6300
War Creek Pass	20A31a	34	33N	18E	6500
Mirrar Lake	20A39	30	31N	18E	5600

Entiat River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Blue Creek G.S.	20B28a	19	28N	18E	5425
Brief	20B19	34	28N	19E	1600
Entiat Meadaws	20A33a	28	31N	17E	4540
Entiat River Trail	20A34a	2	29N	17E	3325
Faur Mile Ridge	20B27a	15	28N	19E	6800
Fax Camp	20A36a	17	30N	18E	6510
Pope Ridge	20B20	22	29N	18E	3540
Pape Ridge Snow Pillaw	20B24SP	22	29N	18E	3540
Pugh Ridge	20A32a	34	30N	18E	6725
Shady Pass	20A37	20	29N	19E	6200
Snow Brushy	20A35a	21	30N	17E	3910
Tammy Creek	20B21a	10	28N	18E	4900

Wenatchee River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Berne-Mill Creek	21B23	7	26N	15E	3170
Berne-Mill Creek (New)	21B41SP	13	26N	14E	3240
Blewett Pass Na. 2	20B2SP	35	22N	17E	4270
Chiwaukum G. S.	20B16	4	25N	17E	1810
Lake Wenatchee	20B5	33	27N	17E	1970
Leavenwarth R. S.	20B17	1	24N	17E	1127
Merritt	20B18	4	26N	16E	2140
Stevens Pass	21B1SP	14	26N	13E	4070
Stevens Pass Sand Shed	21B45	12	26N	19E	3700
Traugh #2	20B25SP	10	20N	20E	5310

Colockum Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Calackum Creek Upper	20B22	11	20N	20E	5300
Calackum Creek Lower	20B23	1	20N	20E	4300

Squilchuck Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Beehive Springs	20B3	12	21N	19E	4400
Scout-A-Vista	20B4	18	21N	20E	3400

Stemilt Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Jump-Off	20B8	34	21N	20E	4450
Stemilt Slide	20B6	30	21N	20E	5000
Upper Wheeler	20B7SP	30	21N	20E	4400

Yakima River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Ahtanum R. S.	21C11	24	12N	14E	3100
Big Boulder Creek	21B9SP	35	23N	14E	3200
Bumping Lake	21C8P	23	16N	12E	3450
Bumping Lake New	21C36	13	16N	12E	3400
Bumping Ridge	21C38SP	9	15N	12E	4600
Colockum Pass	20B9	25	20N	20E	5370
Coake Creek	20B10	17	19N	20E	4123
Fish Lake	21B4SP	28	24N	14E	3371
Green Lake	21C10SP	3	12N	13E	6000
Grouse Camp	20B11SP	29	21N	19E	5385
High Creek	20B12	34	20N	19E	2930
Joe Lake	21B46a	22	23N	12E	4624
Lake Cle Elum	21B14M	15	20N	14E	2200
Lemah Creek	21B47a	7	23N	13E	3327
Manastash	20C1	24	17N	16E	3935
Morse Lake	21C17SP	6	16N	11E	5400
Nanum	20B13	4	20N	19E	3875
Trail Creek	20B14	20	19N	20E	3360
Tunnel Avenue	21B8P	13	21N	11E	2450
Van Epps Pass	20B26a	16	23N	15E	5925
Walters Flat	20B15	22	20N	19E	3360
Waptus Lake	21B49a	12	23N	13E	3024
White Pass (East Side)	21C28SP	2	13N	11E	4500

LOWER COLUMBIA DRAINAGE

Asotin Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Spruce Springs	17C4	9	8N	40E	5700

Tauchet River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Couse	17C3m	2	9N	40E	3370
Homestead	17C1	11	9N	40E	4030
Martin Springs (Helmers SM)	17C2M	23	9N	40E	4400
Touchet No. 2	17C5SP	6	7N	40E	5530

Klickitat River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Satus Pass	20D1	21	6N	17E	4030

Lewis River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
June Lake	22C09SP	26	8N	5E	3200
Lone Pine Shelter	21C26SP	8	9N	7E	3800
Plains af Abraham	22C1SP	35	9N	5E	4400
Spencer Meadaw	21C20SP	16	8N	7E	3400
Surprise Lakes	21C13SP	14	7N	8E	4250

Cawlitz River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Cayuse Pass	21C6	15	16N	10E	5300
Pigtail Peak	21C33SP	11	13N	11E	5900
Patato Hill	21C14SP	36	10N	10E	4500
Sheep Canyan	22C10SP	12	8N	4E	4050
Strawberry	22C08SP	9	10N	6E	3280

PUGET SOUND DRAINAGE

Nisqually River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Paradise Park (New)	21C35SP	13	15N	8E	5500

White River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Carral Pass	21B13SP	30	18N	11E	6000

Green River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Airstrip	21B24P	18	20N	11E	1800
Charley Creek	21B25	27	21N	8E	1200
Cougar Mauntain	21B42SP	21	21N	9E	3200
Grass Mountain No. 2	21B27	14	20N	8E	2900
Grass Mountain No. 3	21B28	12	20N	8E	2100
Lester Creek	21B29	36	20N	10E	3100
Lynn Lake	21B50	22	20N	8E	4000
Sawmill Ridge	21B31	5	19N	11E	4700
Snowshoe Butte	21B43SP	14	20N	11E	5000
Stampede Pass	21B10SP	25	21N	11E	3860
Twin Camp	21B30	18	19N	11E	4100

Cedar River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
City Cabin	21B3	10	21N	10E	2390
Mt. Gardner	21B21P	30	22N	10E	3300
Mt. Gardner Aux.	21B22	31	22N	10E	2500
Mt. Lindsay	21B16P	31	22N	9E	2500
Mt. Washington	21B15P	8	22N	9E	3000
Rex River	21B17P	11	21N	9E	2400
South Fark Cedar	21B6P	24	21N	10E	3000
Tinkham Creek	21B20P	1	21N	10E	3400

Snoqualmie River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Alpine Meadaw	21B48	31	27N	9E	3500
Olallie Meadaws	21B2P	19	22N	11E	3625
South Fark Tolt	21B18P	26	26N	9E	1900
Olallie Meadows East	21B55SP	20	22N	11E	8700

Skykamish River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Lake Elizabeth	21B19P	33	26N	10E	2900

Skagit River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Beaver Creek Trail	21A4	35	39N	12E	2200
Beaver Pass	21A1	9	39N	12E	3680
Brawn Tap	21A28a	26	40N	12E	6000
Devils Park	20A4	34	38N	16E	5900
Freezeout Creek Trail	20A1	14	40N	14E	3500
Freezeout Meadaws (New)	20A38	8	40N	16E	5000
Granite Creek	20A06	25	36N	16E	3500
Meadaws Cabins	20A8	29	36N	14E	1900
New Hozomeen Lake	21A30	19	40N	14E	2800
Thunder Basin	20A07	10	35N	14E	4200

Baker River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Dack Butte	21A11A	8	36N	8E	3800
Easy Pass	21A7A	19	39N	11E	5200
Jasper Pass	21A6A	17	38N	11E	5400
Marten Lake	21A9A	23	38N	8E	3600
Mount Blum	21A18a	27	38N	10E	5800
Racky Creek	21A12AP	20	37N	8E	2100
Schreibers Meadaw	21A10AP	18	37N	8E	3400
S. F. Thunder Creek	21A14A	20	36N	9E	2200
Sulphur Creek	21A13	22	37N	8E	1600
Three Mile Creek	21A15	18	36N	9E	1600
Watson Lakes	21A8P	25	37N	9E	4500

Naak'sack River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Bald Mountain	21A19a	7	40N	7E	4400
Canyan	21A20A	20	40N	8E	5100
Glacier Creek	21A23	9-10	38N	7E	3700
Panorama New	21A26	17	39N	9E	4300
Twin Lakes	21A21a	16	40N	9E	5200

OLYMPIC PENINSULA

Dungeness River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Deer Park	23B4	1	28N	5W	5200

Marse Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Cax Valley	23B14	31	29N	6W	4500

Elwha River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Hurricane	23B3	36	29N	7W	4500

LEGEND

21A7	Snow Course Only
21A7a	Aerial Marker Only
21A7A	Snow Course And Aerial Marker
21A7M	Snow Course And Soil Moisture Station
21A7m	Soil Moisture Station
21A7P	Snow Course And Precipitation Storage Gage
21A7p	Precipitation Storage Gage
21A7SP	Snow Pillow

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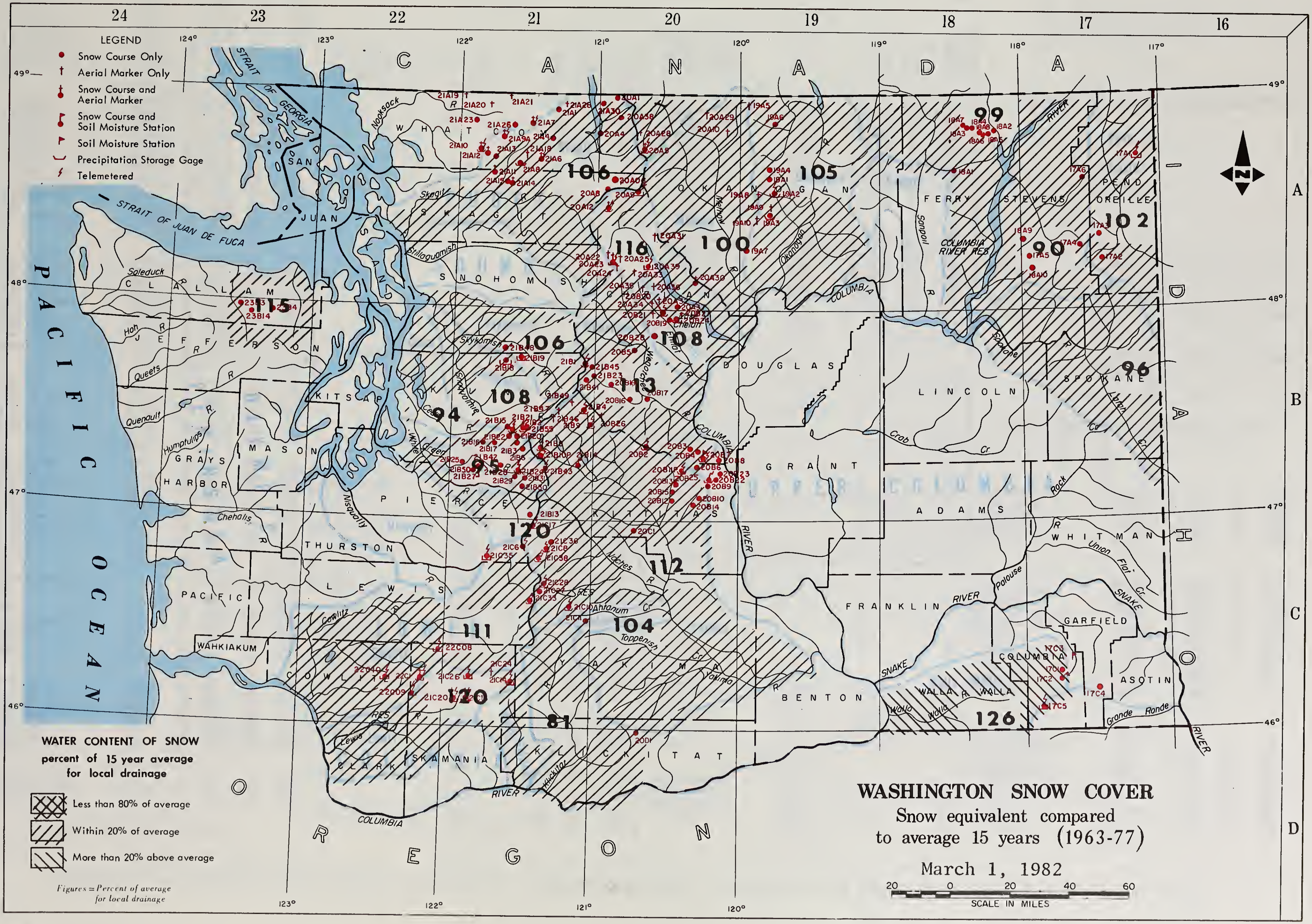

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UPPER COLUMBIA DRAINAGE

Pend Oreille River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Boyer Mountain	17A2	7	31N	43E	5250
Bunchgrass Meadow	17A1SP	24	37N	44E	5000
Winchester Creek	17A3	30	33N	43E	2970

Kettle River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Boulder Road	18A2	36	39N	36E	1450
Butte Creek	18A3	28	39N	35E	4070
Cabin Creek	18A8	5	38N	36E	3170
Goat Creek	18A4	26	39N	35E	3595
Snow Caps Creek	18A5	3	38N	36E	2150
Snow Caps Trail	18A6	5	38N	36E	2720
Summit G. S.	18A7	20	39N	35E	4600

Colville River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Baird	17A6	19	36N	42E	3215
Carlson	18A9	34	32N	38E	2885
Chewelah	17A4	11	32N	41E	4925
Stranger Mountain	17A5	26	31N	38E	4990
Togo	18A10	6	29N	38E	3370

Sanpoil River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Sherman Creek Pass	18A1	19	36N	35E	5350

Okanogan River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Clark	19A8a	2	36N	23E	7000
Muckamuck	19A9a	20	36N	24E	6750
Mutton Creek No. 1	19A1	30	37N	24E	5700
Mutton Creek No. 2	19A4	19	37N	24E	6000
Paysayten	20A28a	32	40N	18E	4300
Rusty Creek	19A3P	18	35N	24E	4000
Salmon Meadows	19A2SP	33	37N	24E	4500
Starvation Mtn.	19A10a	15	35N	23E	6750
Touts Coulee	19A6	30	39N	25E	2845

Methow River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Billy Goat Pass	20A10a	10	38N	20E	6400
Dollar Watch	20A29a	8	39N	20E	7000
Harts Pass	20A5SP	7	37N	18E	6500
Horseshoe Basin	19A5a	15	40N	23E	7000
Loup Loup	19A7	36	34N	23E	4650

Chelan Lake Basin

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Cloudy Pass	20A22a	12	31N	15E	6500
Greenwood Flat	20A25a	3	31N	16E	3540
Little Meadows	20A24a	8	31N	16E	5275
Lyman Lake	20A23SP	18	31N	16E	5900
Park Creek Ridge	20A12SP	18	34N	16E	4600
Rainy Pass	20A9SP	21	35N	17E	4780
Safety Harbor	20A30a	32	31N	20E	6300
War Creek Pass	20A31a	34	33N	18E	6500
Mirror Lake	20A39	30	31N	18E	5600

Entiat River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Blue Creek G.S.	20B28a	19	28N	18E	5425
Brief	20B19	34	28N	19E	1600
Entiat Meadows	20A33a	28	31N	17E	4540
Entiat River Trail	20A34a	2	29N	17E	3325
Four Mile Ridge	20B27a	15	28N	19E	6800
Fox Camp	20A36a	17	30N	18E	6510
Pope Ridge	20B20	22	29N	18E	3540
Pope Ridge Snow Pillow	20B24SP	22	29N	18E	3540
Pugh Ridge	20A32a	34	30N	18E	6725
Shady Pass	20A37	20	29N	19E	6200
Snow Brushy	20A35a	21	30N	17E	3910
Tommy Creek	20B21a	10	28N	18E	4900

Wenatchee River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Berne-Mill Creek	21B23	7	26N	15E	3170
Berne-Mill Creek (New)	21B41SP	13	26N	14E	3240
Blewett Pass No. 2	20B2 SP	35	22N	17E	4270
Chiwaukum G. S.	20B16	4	25N	17E	1810
Lake Wenatchee	20B5	33	27N	17E	1970
Leavenworth R. S.	20B17	1	24N	17E	1127
Merritt	20B18	4	26N	16E	2140
Stevens Pass	21B1SP	14	26N	13E	4070
Stevens Pass Sand Shed	21B45	12	26N	19E	3700
Trough #2	20B25SP	10	20N	20E	5310

Colockum Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Colockum Creek Upper	20B22	11	20N	20E	5300
Colockum Creek Lower	20B23	1	20N	20E	4300

Squilchuck Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Beehive Springs	20B3	12	21N	19E	4400
Scout-A-Vista	20B4	18	21N	20E	3400

Stemilt Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Jump-Off	20B8	34	21N	20E	4450
Stemilt Slide	20B6	30	21N	20E	5000
Upper Wheeler	20B7SP	30	21N	20E	4400

Yakima River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Ahtanum R. S.	21C11	24	12N	14E	3100
Big Boulder Creek	21B9SP	35	23N	14E	3200
Bumping Lake	21C8P	23	16N	12E	3450
Bumping Lake New	21C36	13	16N	12E	3400
Bumping Ridge	21C38SP	9	15N	12E	4600
Colockum Pass	20B9	25	20N	20E	5370
Cooke Creek	20B10	17	19N	20E	4123
Fish Lake	21B4SP	28	24N	14E	3371
Green Lake	21C10SP	3	12N	13E	6000
Grouse Camp	20B11SP	29	21N	19E	5385
High Creek	20B12	34	20N	19E	2930
Joe Lake	21B46a	22	23N	12E	4624
Lake Cle Elum	21B14M	15	20N	14E	2200
Lemah Creek	21B47a	7	23N	13E	3327
Manastash	20C1	24	17N	16E	3935
Morse Lake	21C17SP	6	16N	11E	5400
Nanum	20B13	4	20N	19E	3875
Troil Creek	20B14	20	19N	20E	3360
Tunnel Avenue	21B8P	13	21N	11E	2450
Van Epps Pass	20B26a	16	23N	15E	5925
Walters Flat	20B15	22	20N	19E	3360
Waptus Lake	21B49a	12	23N	13E	3024
White Pass (East Side)	21C28SP	2	13N	11E	4500

LOWER COLUMBIA DRAINAGE

Asotin Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Spruce Springs	17C4	9	8N	40E	5700

Touchet River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Couse	17C3m	2	9N	40E	3370
Homestead	17C1	11	9N	40E	4030
Martin Springs (Helmers SM)	17C2M	23	9N	40E	4400
Touchet No. 2	17C5SP	6	7N	40E	5530

Klickitat River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Satus Pass	20D1	21	6N	17E	4030

Lewis River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
June Lake	22C09SP	26	8N	5E	3200
Lone Pine Shelter	21C26SP	8	9N	7E	3800
Plains of Abraham	22C1SP	35	9N	5E	4400
Spencer Meadow	21C20SP	16	8N	7E	3400
Surprise Lakes	21C13SP	14	7N	8E	4250

Cowlitz River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Cayuse Pass	21C6	15	16N	10E	5300
Pigtail Peak	21C33SP	11	13N	11E	5900
Potato Hill	21C14SP	36	10N	10E	4500
Sheep Canyon	22C10SP	12	8N	4E	4050
Strawberry	22C08SP	9	10N	6E	3280

PUGET SOUND DRAINAGE

Nisqually River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Paradise Park (New)	21C35 SP	13	15N	8E	5500

White River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Corral Pass	21B13 SP	30	18N	11E	6000

Green River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Airstrip	21B24P	18	20N	11E	1800
Charley Creek	21B25	27	21N	8E	1200
Cougar Mountain	21B42SP	21	21N	9E	3200
Grass Mountain No. 2	21B27	14	20N	8E	2900
Grass Mountain No. 3	21B28	12	20N	8E	2100
Lester Creek	21B29	36	20N	10E	3100
Lynn Lake	21B50	22	20N	8E	4000
Sawmill Ridge	21B31	5	19N	11E	4700
Snowshoe Butte	21B43SP	14	20N	11E	5000
Stampede Pass	21B10 SP	25	21N	11E	3860
Twin Camp	21B30	18	19N	11E	4100

Cedar River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
City Cabin	21B3	10	21N	10E	2390
Mt. Gardner	21B21P	30	22N	10E	3300
Mt. Gardner Aux.	21B22	31	22N	10E	2500
Mt. Lindsay	21B16P	31	22N	9E	2500
Mt. Washington	21B15P	8	22N	9E	3000
Rex River	21B17P	11	21N	9E	2400
South Fork Cedar	21B6P	24	21N	10E	3000
Tinkham Creek	21B20P	1	21N	10E	3400

Snoqualmie River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Alpine Meadow	21B48	31	27N	9E	3500
Olallie Meadows	21B2P	19	22N	11E	3625
South Fork Tolt	21B18P	26	26N	9E	1900
Olallie Meadows East	21B55SP	20	22N	11E	8700

Skykomish River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Lake Elizabeth	21B19P	33	26N	10E	2900

Skagit River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Beaver Creek Trail	21A4	35	39N	12E	2200
Beaver Pass	21A1	9	39N	12E	3680
Brown Top	21A28a	26	40N	12E	6000
Devils Park	20A4	34	38N	16E	5900
Freezeout Creek Trail	20A1	14	40N	14E	3500
Freezeout Meadows (New)	20A38	8	40N	16E	5000
Granite Creek	20A06	25	36N	16E	3500
Meadows Cabins	20A8	29	36N	14E	1900
New Hozomeen Lake	21A30	19	40N	14E	2800
Thunder Basin	20A07	10	35N	14E	4200

Baker River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Dock Butte	21A11A	8	36N	8E	3800
Easy Pass	21A7A	19	39N	11E	5200
Jasper Pass	21A6A	17	38N	11E	5400
Marten Lake	21A9A	23	38N	8E	3600
Mount Blum	21A18a	27	38N	10E	5800
Rocky Creek	21A12AP	20	37N	8E	2100
Schreibers Meadow	21A10AP	18	37N	8E	3400
S. F. Thunder Creek	21A14A	20	36N	9E	2200
Sulphur Creek	21A13	22	37N	8E	1600
Three Mile Creek	21A15	18	36N	9E	1600
Watson Lakes	21A8P	25	37N	9E	4500

Nooksack River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Bald Mountoin	21A19a	7	40N	7E	4400
Canyon	21A20A	20	40N	8E	5100
Glacier Creek	21A23	9-10	38N	7E	3700
Panorama New	21A26	17	39N	9E	4300
Twin Lakes	21A21a	16	40N	9E	5200

OLYMPIC PENINSULA

Dungeness River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Deer Park	23B4	1	28N	5W	5200

Morse Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Cox Valley	23B14	31	29N	6W	4500

Elwha River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Hurricane	23B3	36	29N	7W	4500

LEGEND

21A7	Snow Course Only
21A7a	Aerial Marker Only
21A7A	Snow Course And Aerial Marker
21A7M	Snow Course And Soil Moisture Station
21A7m	Soil Moisture Station
21A7P	Snow Course And Precipitation Storage Gage
21A7p	Precipitation Storage Gage
21A7SP	Snow Pillow

WATER SUPPLY OUTLOOK

State of Washington

March 1, 1982

Snow surveys taken around the first of March indicate again that the water supply outlook for the State of Washington is good. Near normal snowpacks were recorded and with the above normal rainfall measured in the lower elevation, the resultant runoff forecasts are for expected flows ranging from 6 percent below average to 30 percent above. There are no foreseeable problem areas.

SNOW COVER

A near normal snow cover was measured throughout the state and in tributary areas. The snowpack in the Upper Columbia portion of the state and tributaries is now 4 percent above average, 29 percent greater than was measured in 1980 and 133 percent greater than was measured last year. Along the Lower Columbia tributaries, the March 1 snow cover is 11 percent greater than average. In the Puget Sound area, the snow is 6 percent above normal.

RESERVOIRS

February runoff added considerable water to the storage of all reservoirs in the state and improved the outlook for summer water supplies. Four of the five reservoirs in the Yakima basin have normal or above amounts of water in storage. Water behind the Cle Elum dam is only 42 percent of the average and 27 percent of capacity. In the last five months, court ordered releases of over 80,000 acre-feet have been made from the irrigation reservoirs in the upper Yakima system. These releases are to maintain fish water in the upper tributaries. Power reservoirs such as Lake Roosevelt are being lowered to contain the spring runoff when it occurs in May and June, and others are holding their own to recover from last years deficits.

PRECIPITATION

Excellent rainfall occurred throughout the state and tributary areas except for the Okanogan drainage division. Precipitation in this area was only 88 percent of normal. Rainfall percentage ranged from 126 percent to 193 percent of normal with the greatest occurring along the east slopes and in the Yakima basin. Precipitation for the winter period of November through February is now above normal for all drainage divisions as reported by the National Weather Service.

STREAMFLOW

The only streamflow, as reported by the Current Records Center of the U. S. Geological Survey, that had a below normal outflow during February was the Similkameen River as measured at Nighthawk. This was 26 percent below normal. The greatest flows occurred on the Spokane River at 300 percent of normal and on the Palouse at 295 percent. Along the mainstem of the Columbia, excellent flows were measured with the Columbia at The Dalles reporting to have 176 percent of average. Forecasts of spring and summer runoff are generally for near normal outflows with the only subnormal amounts occurring in the Puget Sound drainages. The largest, percentagewise, is the forecast of Mill Creek at Walla Walla which is expected to flow 30 percent above normal during the April-September period. Numerical forecasts can be found following this narrative.

STREAMFLOW FORECASTS - March, 1982

The following summarized runoff forecasts are based principally on mountain snow-cover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts. The forecasts are made as a product of the cooperative efforts of the Soil Conservation Service and the National Weather Service. Streamflow figures for 1981 are preliminary and subject to revision.

Basin, Stream and Station	Forecast Runoff 1982	Seasonal Streamflow in Thousands of Acre-Feet: % 15-Yr. Avg.	Fore-cast period	1981	1980	1979	15-Yr. Average 63-77
COLUMBIA BASIN							
COLUMBIA RIVER SYSTEM							
Columbia River	49100	108	Apr-Sept	48531	40816	34484	45510
at Birchbank 1/	39300	108	Apr-July	38501	34085	27181	36358
	28300	108	Apr-June	27002	27623	19661	26197
Columbia River	74200	109	Apr-Sept	70303	61016	52769	68026
at Grand Coulee 1/	62200	109	Apr-July	58525	52320	44096	57050
	48300	109	Apr-June	44235	43871	35138	44280
Columbia River	81900	111	Apr-Sept	77308	66512	55298	73911
bl. Priest Rapids 1/	69300	111	Apr-July	64689	57767	46700	62444
	53800	111	Apr-June	49348	48667	37453	48479
Columbia River	117000	113	Apr-Sept	96997	93170	76843	103477
at The Dalles, OR 1/	100000	113	Apr-July	82171	79931	65758	88503
	80500	113	Apr-June	65104	68316	55016	71219
PEND OREILLE RIVER SYSTEM							
Pend Oreille River	17200	110	Apr-Sept	13896	13271	11639	15643
bl. Box Canyon	15800	110	Apr-July	13179	12116	11095	14334
	13500	110	Apr-June	11594	10776	10217	12277
KETTLE RIVER SYSTEM							
Kettle River	2030	110	Apr-Sept	2181	1835	1259	1845
nr. Laurier	1900	108	Apr-July	2039	1747	1216	1753
	1750	110	Apr-June	1711	1603	1132	1587
Colville River	155	116	Apr-Sept		116	63	134
at Kettle Falls	140	114	Apr-July		105	58	123
	130	113	Apr-June		97	55	115

1/ Observed flow corrected for storage in any of the following reservoirs which are above the station: Kootenay Lake, Hungry Horse, Flathead Lake, Pend Oreille Lake, F. D. Roosevelt Lake, Lake Chelan, Coeur d'Alene Lake, Brownlee, Noxon Reservoir and pumpage at F. D. Roosevelt Lake.

Basin, Stream and Station	Forecast Runoff 1982	% 15-yr. Avg.	Fore-cast period	Seasonal Streamflow in Thousands of Acre-Feet 1981	1980	1970	15-Yr. Average 63-77
SPOKANE RIVER SYSTEM **							
Spokane River	3300	107	Apr-Sept	2238	2214	2809	2910
at Post Falls, ID 2/	3000	110	Apr-July	2145	2046	2757	2733
	2860	110	Apr-June	1960	1904	2678	2600
OKANOGAN RIVER SYSTEM							
Similkameen River	1650	109	Apr-Sept	1241	1479	872	1517
nr.Nighthawk	1490	105	Apr-July	1118	1391	812	1417
	1240	104	Apr-June	930	1247	728	1192
Okanogan River	1800	105	Apr-Sept		1551	909	1718
nr. Tonasket	1660	106	Apr-July	1363	1423	825	1564
	1380	106	Apr-June	1090	1240	730	1304
METHOW RIVER SYSTEM							
Methow River	1130	112	Apr-Sept		996	478	1011
nr. Pateros	1050	112	Apr-July		934	432	937
	850	107	Apr-June		811	382	791
CHELAN RIVER SYSTEM							
Chelan River	1350	109	Apr-Sept	917	1120	753	1238
at Chelan 3/	1190	110	Apr-July	812	1020	662	1080
	920	110	Apr-June	647	859	553	834
Stehekin River	980	111	Apr-Sept			566	883
at Stehekin	830	112	Apr-July			477	744
	620	112	Apr-June			387	557
Entiat River	290	120	Apr-Sept		216	134	241
nr. Ardenvoir	260	119	Apr-July		200	120	218
	210	121	Apr-June		172	104	174
WENATCHEE RIVER SYSTEM							
Wenatchee River	1500	116	Apr-Sept			893	1297
at Plain	1330	115	Apr-July			812	1156
	1030	114	Apr-June			704	903
Wenatchee River	2100	119	Apr-Sept	1249	1516	1165	1767
at Peshastin	1870	118	Apr-July	1148	1399	1074	1586
	1450	116	Apr-June	956	1208	938	1250
Stemilt Basin	130*	94	May-Sept				138*
nr. Wenatchee							
Icicle Creek	400	108	Apr-Sept				371
nr. Leavenworth	370	108	Apr-July				342
	300	108	Apr-June				279

* Thousands of Miners' Inches.

** Forecasts made by Jack A. Wilson, Soil Conservation Service, Boise, Idaho.

2/ Observed flow corrected for storage in Coeur d'Alene Lake and diversions by Spokane valley farms Company and Rathdrum Prairie Canals.

3/ Observed flow corrected for storage in Lake Chelan.

Basin, Stream and Station	Forecast Runoff 1982	% 15-yr. Avg.	Fore cast period	Seasonal Streamflow in Thousands of Acre-Feet 1981	1980	1979	15-yr. Average 63-77
YAKIMA RIVER SYSTEM							
Yakima River	160	110	Apr-Sept	95	115	124	144
nr. martin 4/	145	109	Apr-July	82	103	114	133
	125	110	Apr-June	73	95	101	114
Yakima River	1075	110	Apr-Sept	700	792	714	975
at Cle Elum 5/	970	110	Apr-July	643	716	683	882
	830	111	Apr-June	563	646	599	750
Yakima River	2350	108	Apr-Sept	1194	1833	1388	2168
nr. Parker 6/	2110	108	Apr-July	1059	1733	1287	1954
	1810	107	Apr-June	961	1610	1179	1693
Kachess River	145	115	Apr-Sept	81	111	101	126
nr. Easton 7/	135	113	Apr-July	72	105	95	119
	115	112	Apr-June	66	91	88	103
Cle Elum River	555	115	Apr-Sept	313		348	479
nr. Roslyn 8/	500	115	Apr-July	282	350	326	435
	410	115	Apr-June	244	314	292	358
Bumping River	150	103	Apr-Sept	78	129	99	146
nr. Nile 9/	135	102	Apr-July	70	120	92	132
	110	104	Apr-June	63	111	82	106
American River	130	102	Apr-Sept			81	127
nr. Nile	120	103	Apr-July			74	116
	100	105	Apr-June			66	95
Tieton River	275	110	Apr-Sept	148	224	179	252
at Tieton Dam 10/	230	108	Apr-July	131	192	148	212
	180	107	Apr-June	108	166	120	168
Naches River	950	106	Apr-Sept	419	729	574	893
nr. Naches 11/	850	105	Apr-July	380	694	528	806
	720	106	Apr-June	339	638	478	678
Ahtanum Creek	50	106	Apr-Sept				47
nr. Tampico 12/	45	107	Apr-July				42
	40	108	Apr-June				37

4/ Observed flow corrected for storage in Lake Keechelus.
5/ Observed flow corrected for storage in Keechelus, Kachess, and Cle Elum Lakes and diversion by Kittitas Canal.
6/ Observed flow corrected for storage in Keechelus, Kachess, Cle Elum, Bumping, and Rimrock Lakes and diversions by Roza, Union Gap, New Reservation, Old Reservation, and Sunnyside Canals.
7/ Observed flow corrected for storage in Lake Kachess.
8/ Observed flow corrected for storage in Lake Cle Elum.
9/ Observed flow corrected for storage in Bumping Lake.
10/ Observed flow corrected for storage in Rimrock Lake.
11/ Observed flow corrected for storage in Bumping and Rimrock Lakes and diversions by Tieton, Selah Valley, Wapatox Canals, and City of Yakima.
12/ Observed flow of North and South Forks (Combined).

Basin, Stream and Station	Forecast Runoff 1982	Seasonal Streamflow in Thousands of Acre-Feet % 15-yr. Avg.	Fore-cast period	1981	1980	1979	15-yr. Average 63-77
LOWER COLUMBIA RIVER SYSTEM							
Mill Creek	22.8	130	Apr-Sept			22.37	17.50
at Walla Walla	22.5	130	Apr-July			22.25	17.33
	22.3	130	Apr-June			22.14	17.15
Lewis River	1500	116	Apr-Sept	1096	1001	962	1298
at Ariel 13/	1300	115	Apr-July	971	883	830	1128
	1150	116	Apr-June	865	798	749	992
Cowlitz River	2450	115	Apr-Sept		1626	1563	2126
bl. Mayfield Dam	2150	116	Apr-July		1432	1367	1854
	1800	116	Apr-June		1275	1203	1553
Cowlitz River	3100	112	Apr-Sept	2390	1976	2046	2766
at Castle Rock 14/	2700	112	Apr-July	2125	1852	1792	2401
	2300	113	Apr-June	1875	1649	1574	2029
OLYMPIC PENINSULA							
DUNGENESS RIVER SYSTEM							
Dungeness River	180	113	Apr-Sept			110	160
nr. Sequim	145	112	Apr-July			90	130
	105	109	Apr-June			71	96
PUGET SOUND							
SKAGIT RIVER SYSTEM							
Skagit River	2750	109	Feb-Aug			1785	2532
at Newhalem 15/	2500	106	Apr-Sept			1648	2356
	2090	106	Apr-July			1359	1972
	1600	108	Apr-June			1102	1485
GREEN RIVER SYSTEM							
Green River	300	95	Apr-Sept				316
bl. Howard Hanson Dam 16/	270	95	Apr-July				284
	250	98	Apr-June				256
CEDAR RIVER SYSTEM							
Cedar River	90	97	Apr-Sept				93
nr. Cedar Falls							
ELWHA RIVER SYSTEM							
Elwha River	580	105	Apr-Sept			404	553
nr. Port Angeles	475	105	Apr-July			330	454

13/ Observed flow corrected for storage in Lake Merwin, Yale, and Swift Reservoirs.
14/ Observed flow corrected for storage in Mayfield Reservoir.
15/ Observed flow corrected for storage in Diablo, Ross, and Gorge Reservoirs.
16/ Observed flow corrected for storage in Howard Hanson Dam.

RESERVOIR STORAGE - 1000 Acre Feet

BASIN OR STREAM	RESERVOIR	USABLE 1/ CAPACITY	Measured March 1 1982	1981	1980	Normal
		COLUMBIA				
Spokane	Coeur d'Alene Lake	225.1	433.7	217.5	79.5	121.6
Columbia	Franklin D. Roosevelt Lake	5232.0	4049.4	4813.9	2209.6	2681.2
Columbia	Banks Lake	714.9	706.9	538.0	701.5	621.3
Okanogan	Conconully Reservoir	13.0	10.2	7.8	3.5	6.7
Okanogan	Conconully Lake	10.5	8.9	10.4	8.3	7.5
Chelan	Lake Chelan	676.1	269.4	437.3	168.4	235.5
		YAKIMA				
Yakima	Keechelus Lake	157.8	121.8	143.4	78.3	105.4
Kachess	Kachess Lake	239.0	182.1	204.1	76.9	183.0
Cle Elum	Lake Cle Elum	436.9	118.7	267.3	363.3	280.2
Bumping	Bumping Lake	33.7	16.5	32.5	15.8	8.7
Tieton	Rimrock Lake	198.0	153.6	197.5	68.4	125.3
		PUGET SOUND				
Skagit	Ross Reservoir	1404.1	799.4	1287.6	627.2	894.0
Skagit	Diablo Reservoir	90.6	84.3	85.2	85.0	85.2
Skagit	Gorge Reservoir	9.8	7.6	8.0	7.5	8.1

1/ Based on Active Storage

* 15-yr. Average 1963-1977

COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS

The following tabulation of Washington stream basins presents the water content of the snow about March 1, 1982, as percent of the same date in 1981 and 1980 and average of record.

Tributary Basin	No. of Courses Average	1982 Snow Water Expressed as percent of 1981	1980	1963-77 Avg.
UPPER COLUMBIA BASIN				
Pend Oreille	16	433	142	102
Kettle	16	158	131	99
Colville	4	290	118	90
Spokane	12	266	177	96
Okanogan	39	167	140	105
Methow	8	134	112	100
Chelan	5	179	137	116
Entiat	10	163	130	108
Wenatchee	10	304	132	113
Yakima	24	330	124	112
Ahtanum	2	146	86	104
LOWER COLUMBIA BASIN				
Mill Creek	3	275	154	126
Klickitat	1	-	103	81
Lewis	2	-	-	120
Cowlitz	1	451	135	111
White Salmon	1	-		119
PUGET SOUND				
Cedar	2	-	220	94
White	1	208	126	120
Green	10	956	206	95
Snoqualmie	2	878	266	108
Skykomish	2	340	146	106
Skagit	15	312	156	106
Baker	9	584	228	117
OLYMPIC PENINSULA				
Morse Creek	1	486	197	115
Elwha	1	1068	290	100
Dungeness	1	491	213	126

PRECIPITATION 1/

Division Average Observations and Departures

Drainage Divisions	FALL Sept-Oct 1981 2/ Observed	Departure	WINTER Nov. 1981 - Feb. 1982 2/ Observed	Departure
Columbia in Canada	5.17	+0.15	13.91	+1.36
Pend Oreille - Spokane	3.56	-0.48	16.26	+1.24
Northeastern Washington	3.28	+0.80	8.50	+0.39
Southeastern Washington	3.03	+0.52	10.76	+1.94
East Slope Cascades	4.87	+0.12	29.23	+5.03
North Central Washington	2.61	+1.02	5.84	+0.06
Northwest Slope Cascades	13.88	+0.67	52.46	+5.36
Southwest Slope Cascades	9.98	+1.30	38.86	+3.38

Northeastern Washington - Lower Spokane, Colville, Sanpoil, and Lower Kettle Drainages.

Southeastern Washington - Touchet, Tucannon, and Palouse Drainages.

East Slope Cascades - Yakima, Wenatchee and Chelan Drainages.

North Central Washington - Methow and Okanogan Drainages.

Northwest Slope Cascades - Puget Sound Drainages.

Southwest Slope Cascades - Lower Columbia Drainages.

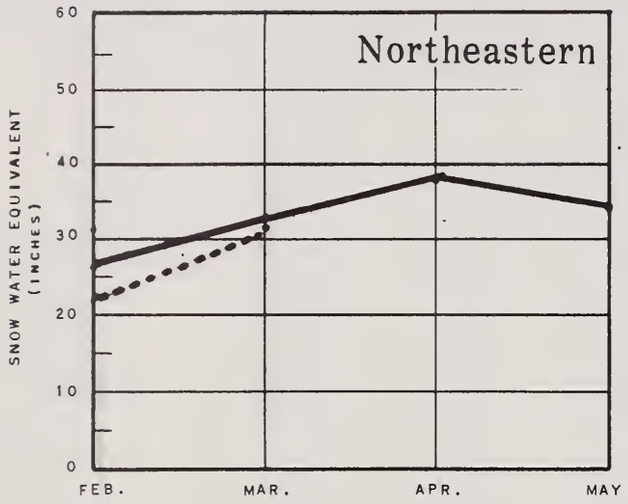
1/ - Preliminary analysis by National Weather Service from data furnished by Meteorlogical Services of Canada and the National Weather Service.

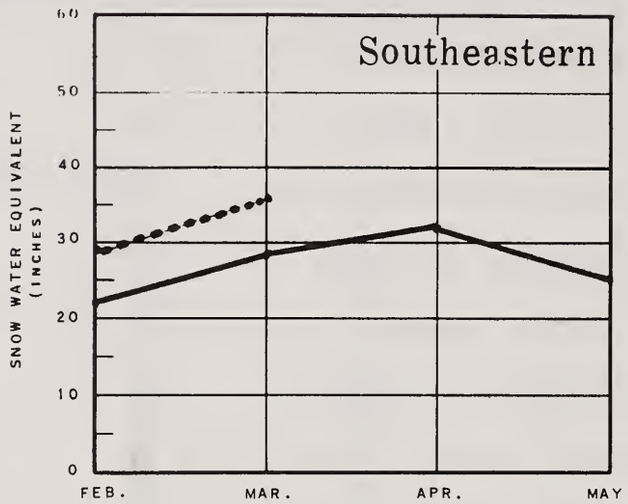
2/ - Departure from 15-year (1958-72) drainage division average.

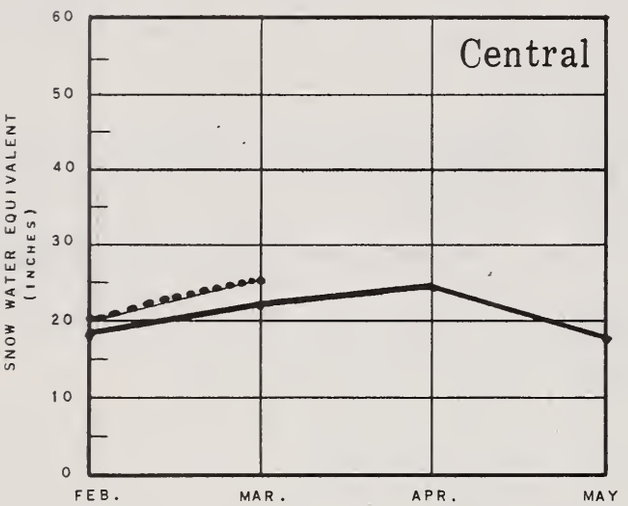
WASHINGTON SNOW COVER

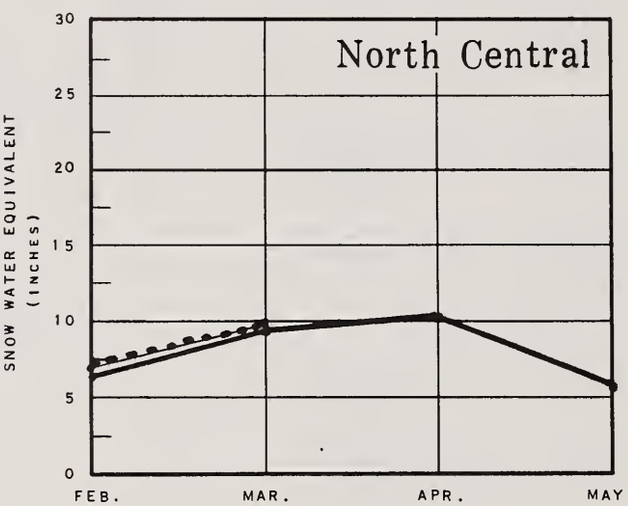
1982

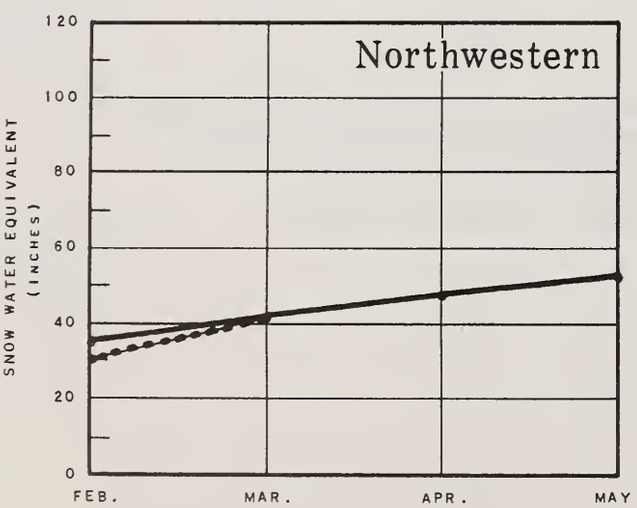
DRAINAGE AREAS

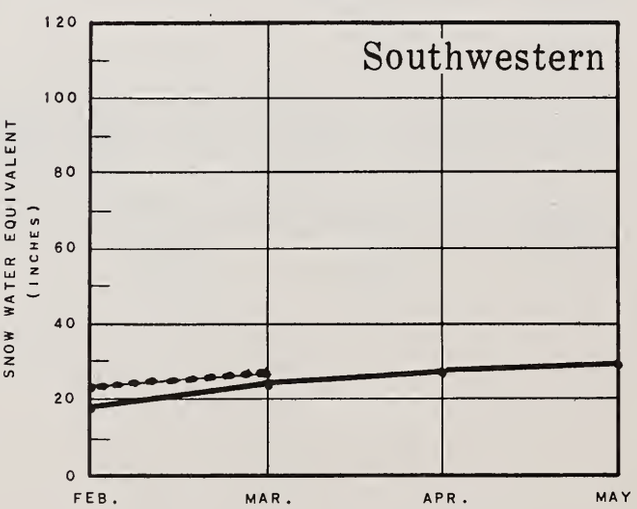












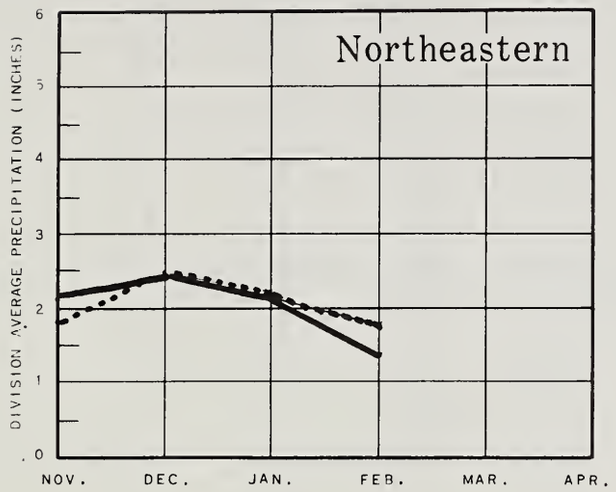
Average
1982

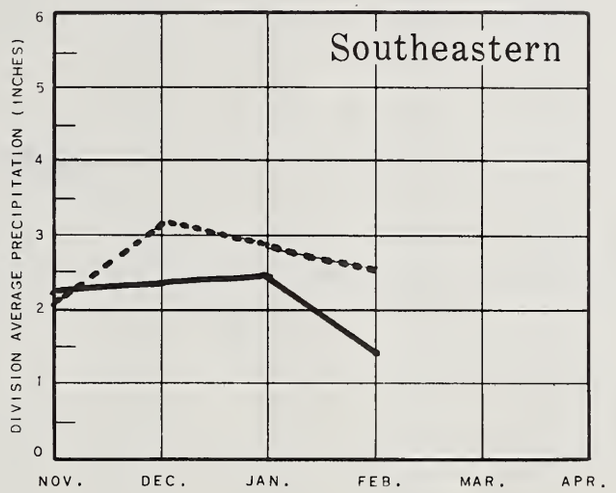
Selected Snow Survey Courses by Soil Conservation Service

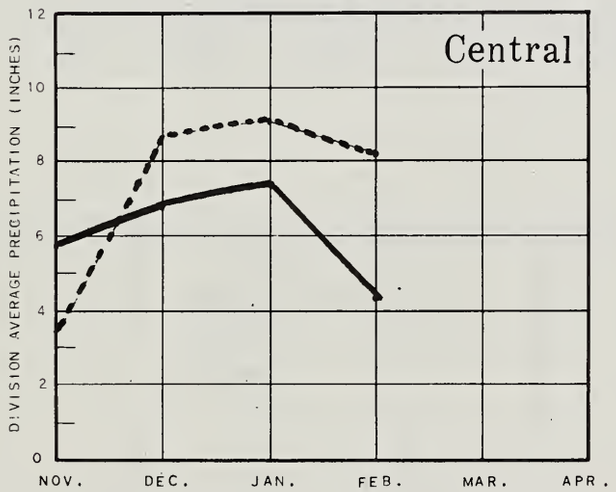
WASHINGTON VALLEY PRECIPITATION

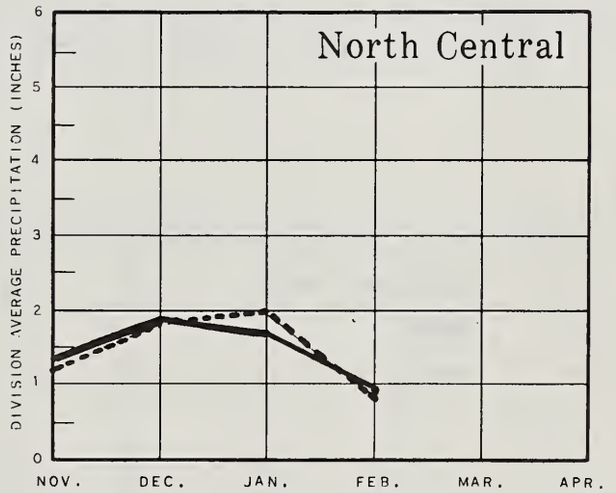
1982

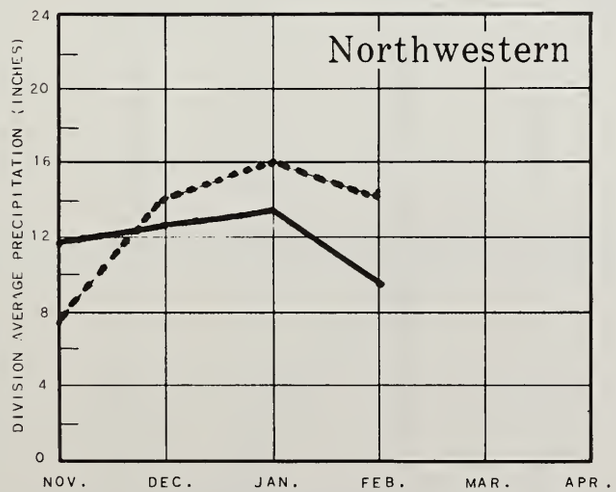
DRAINAGE AREAS

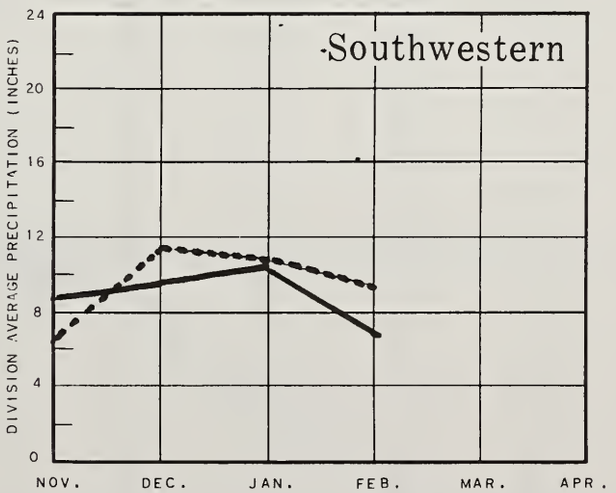








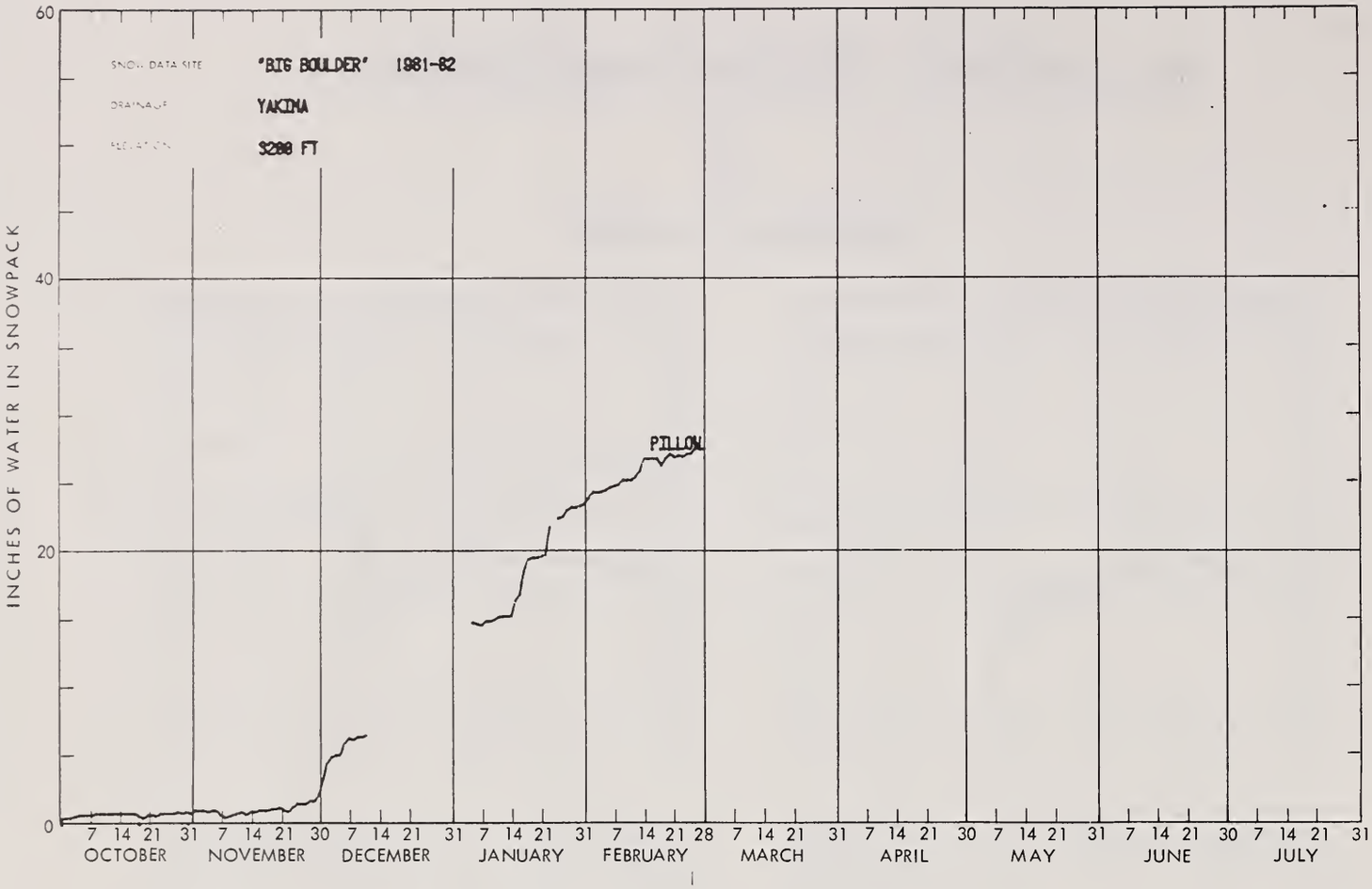


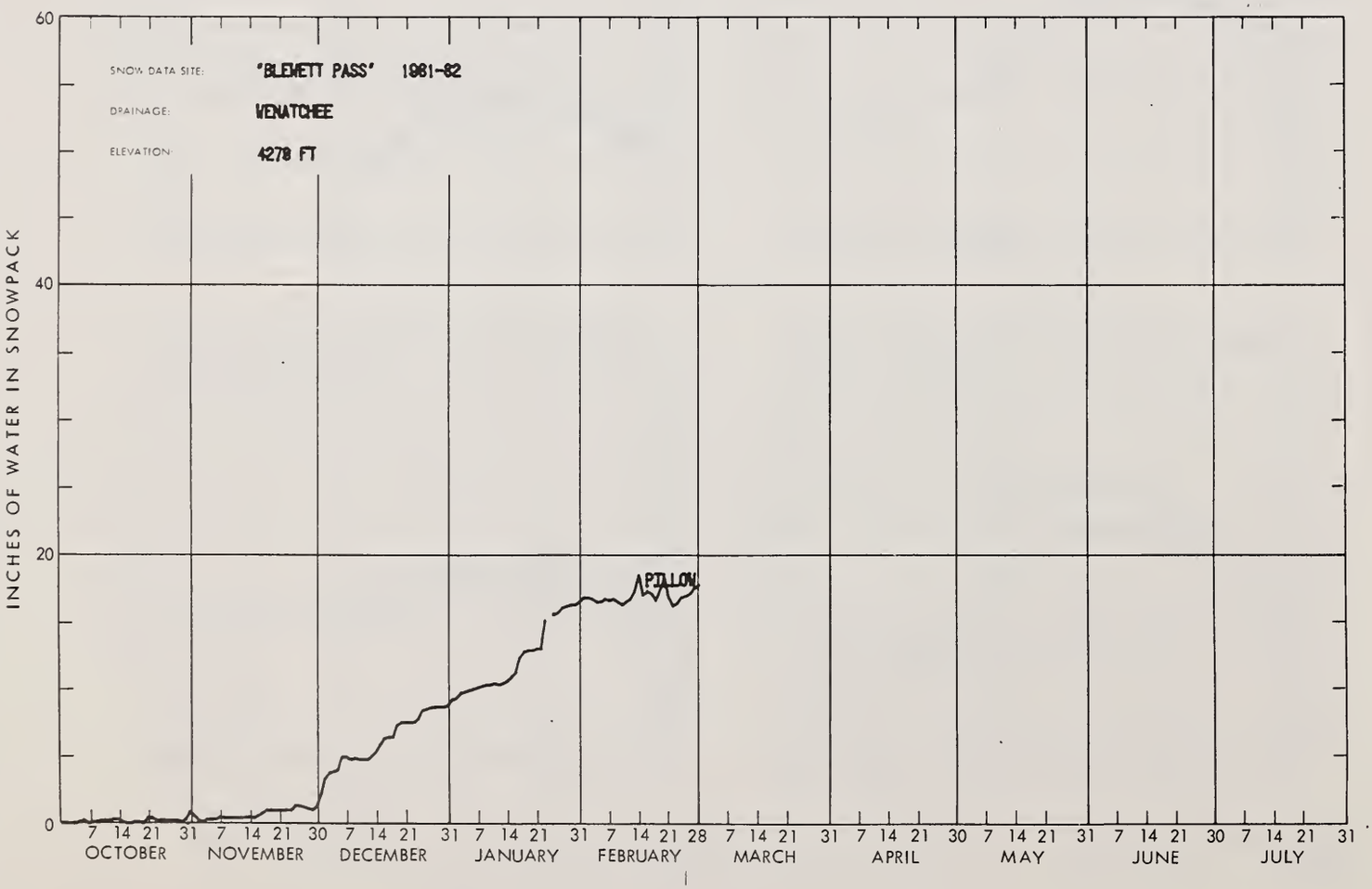


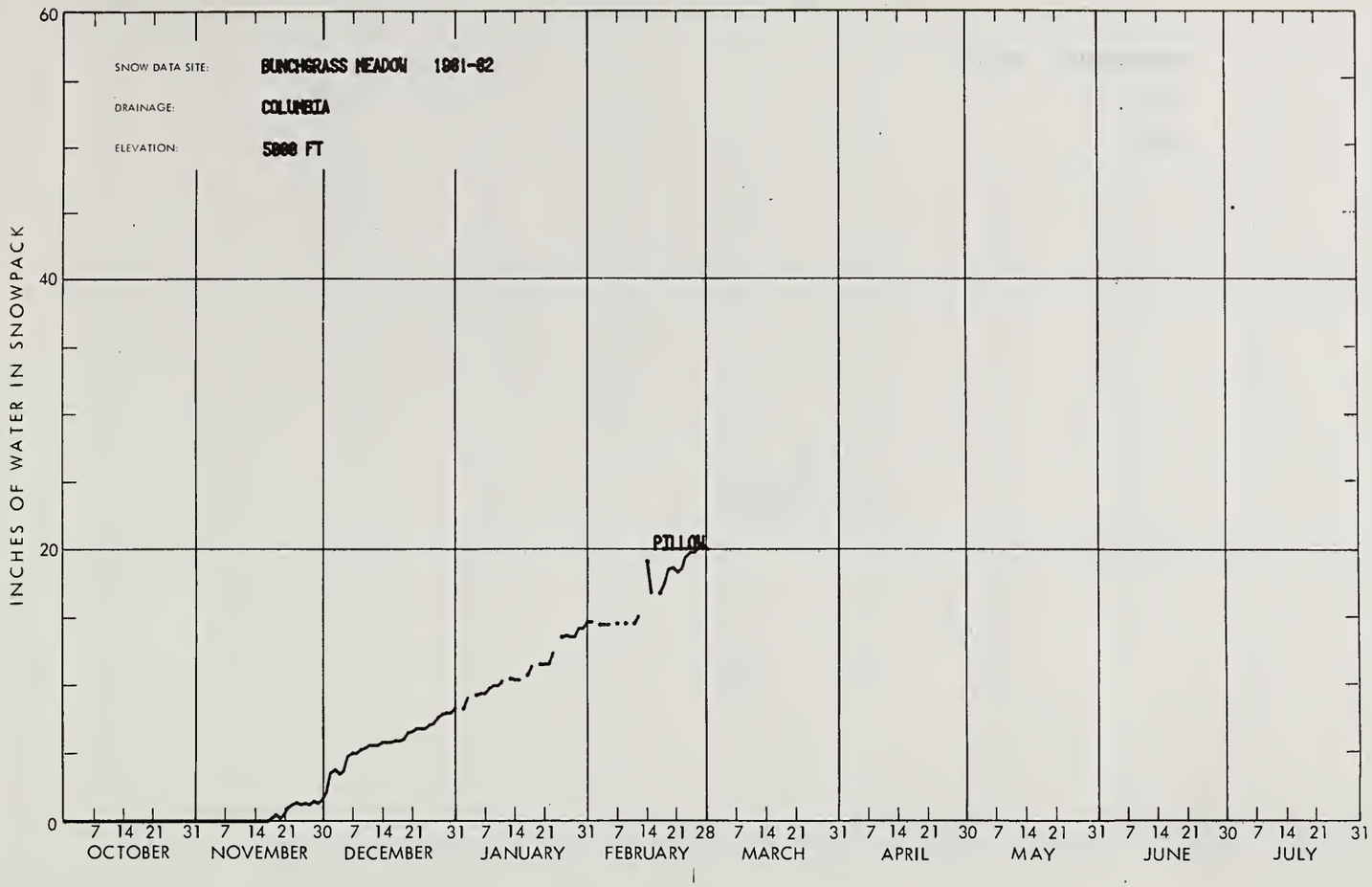
Average: ——————
1982 : - - - - - - - -

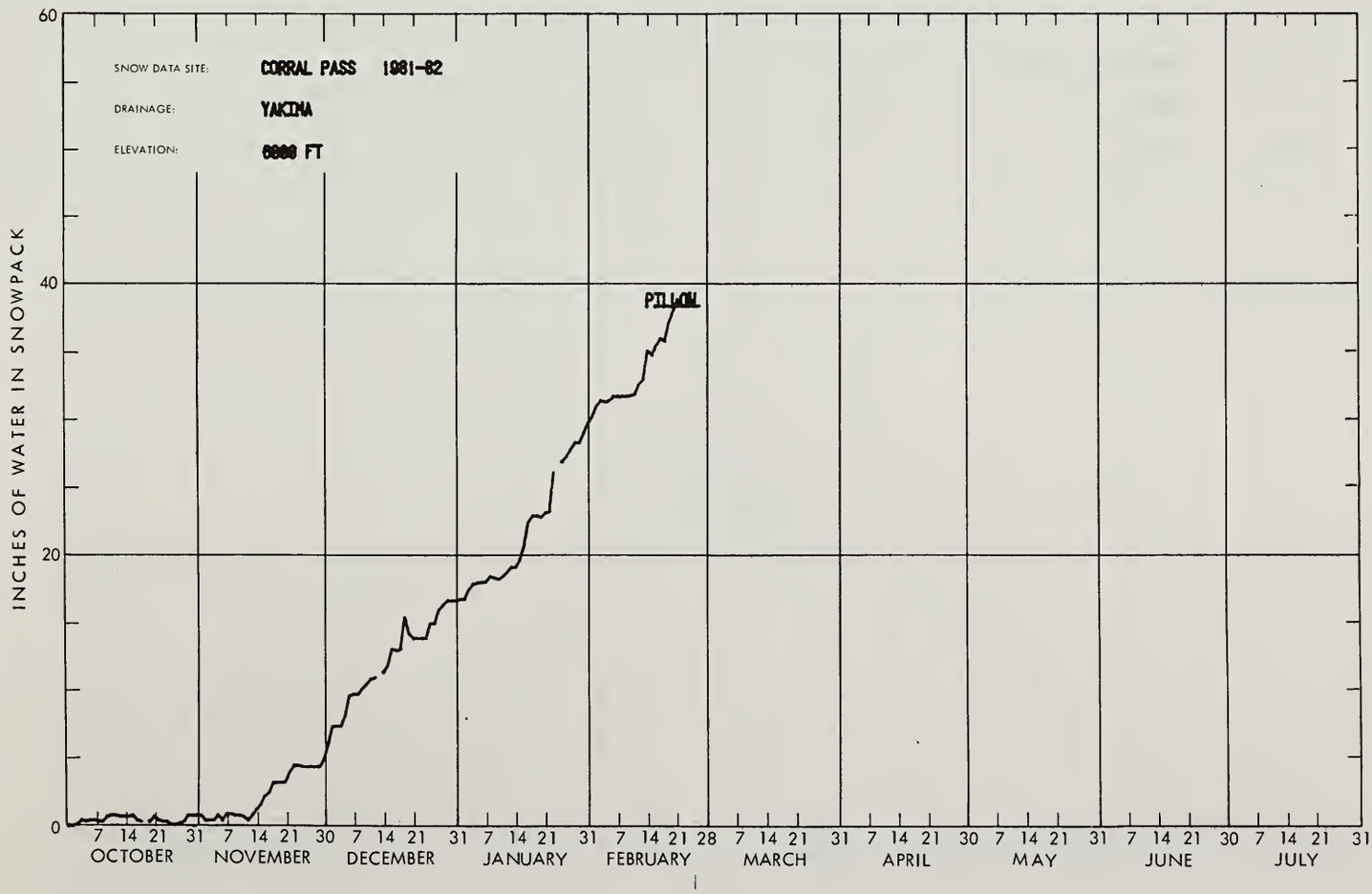
Preliminary Analysis by National Weather Service

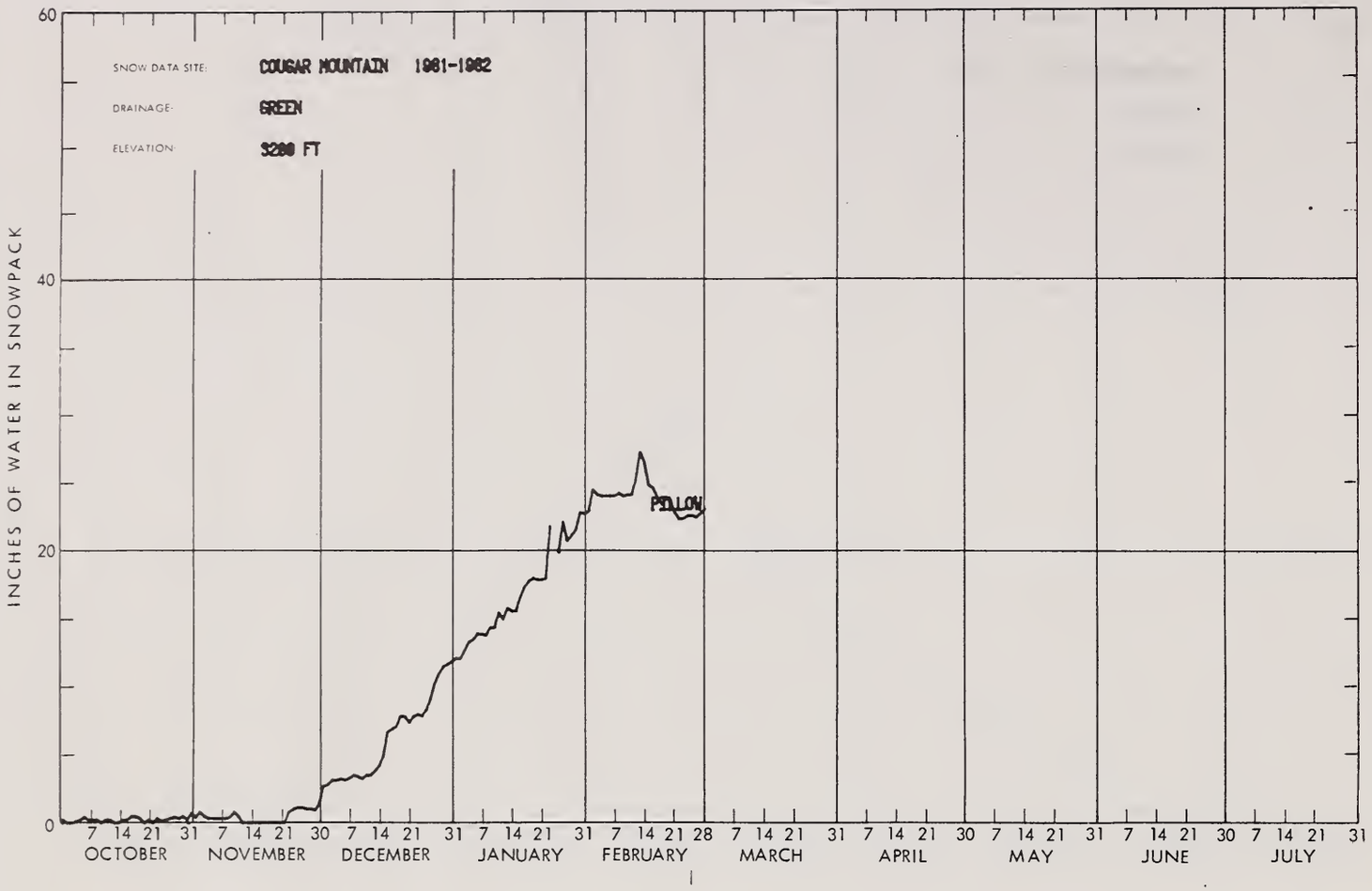
M7-L-22028H

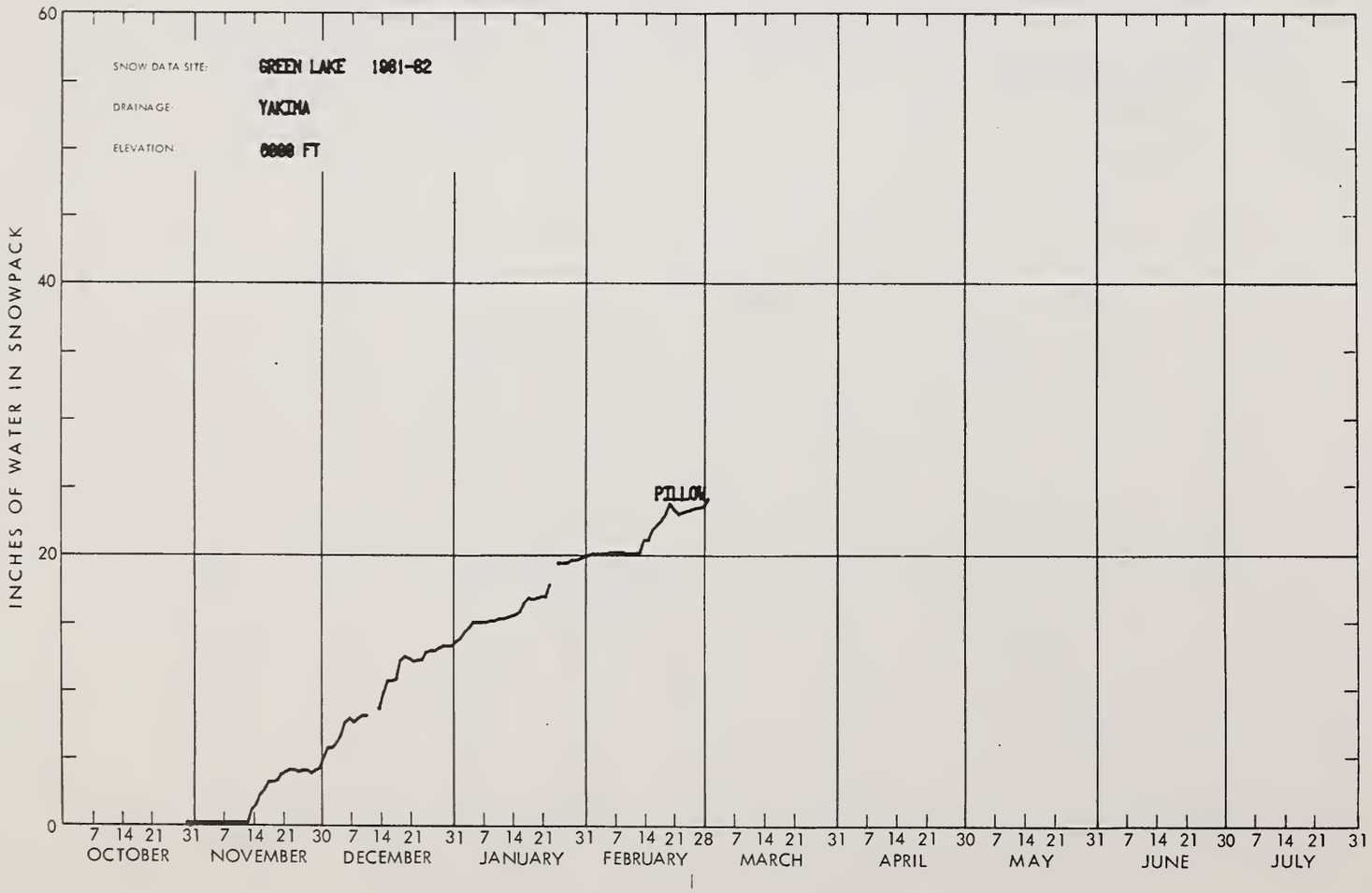

SNOW DATA SITE 'BIG BOULDER' 1981-82
DRAINAGE YAKIMA
ELEVATION 3200 FT
PILLOW
INCHES OF WATER IN SNOWPACK
0
20
40
60
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

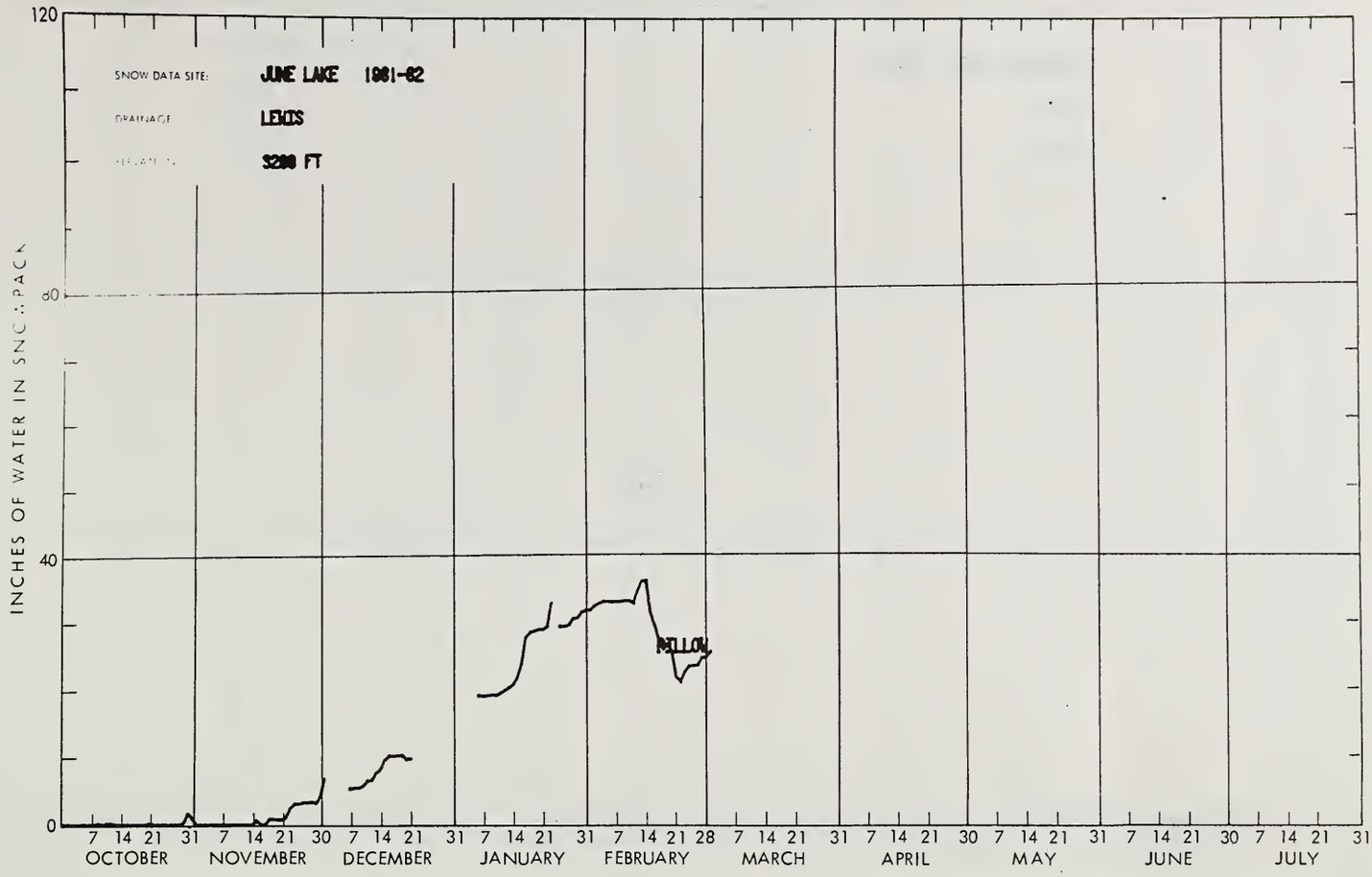

SNOW DATA SITE: 'BLEWETT PASS' 1981-82
DRAINAGE: WENATCHEE
ELEVATION: 4278 FT
PILLOW
INCHES OF WATER IN SNOWPACK
0
20
40
60
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

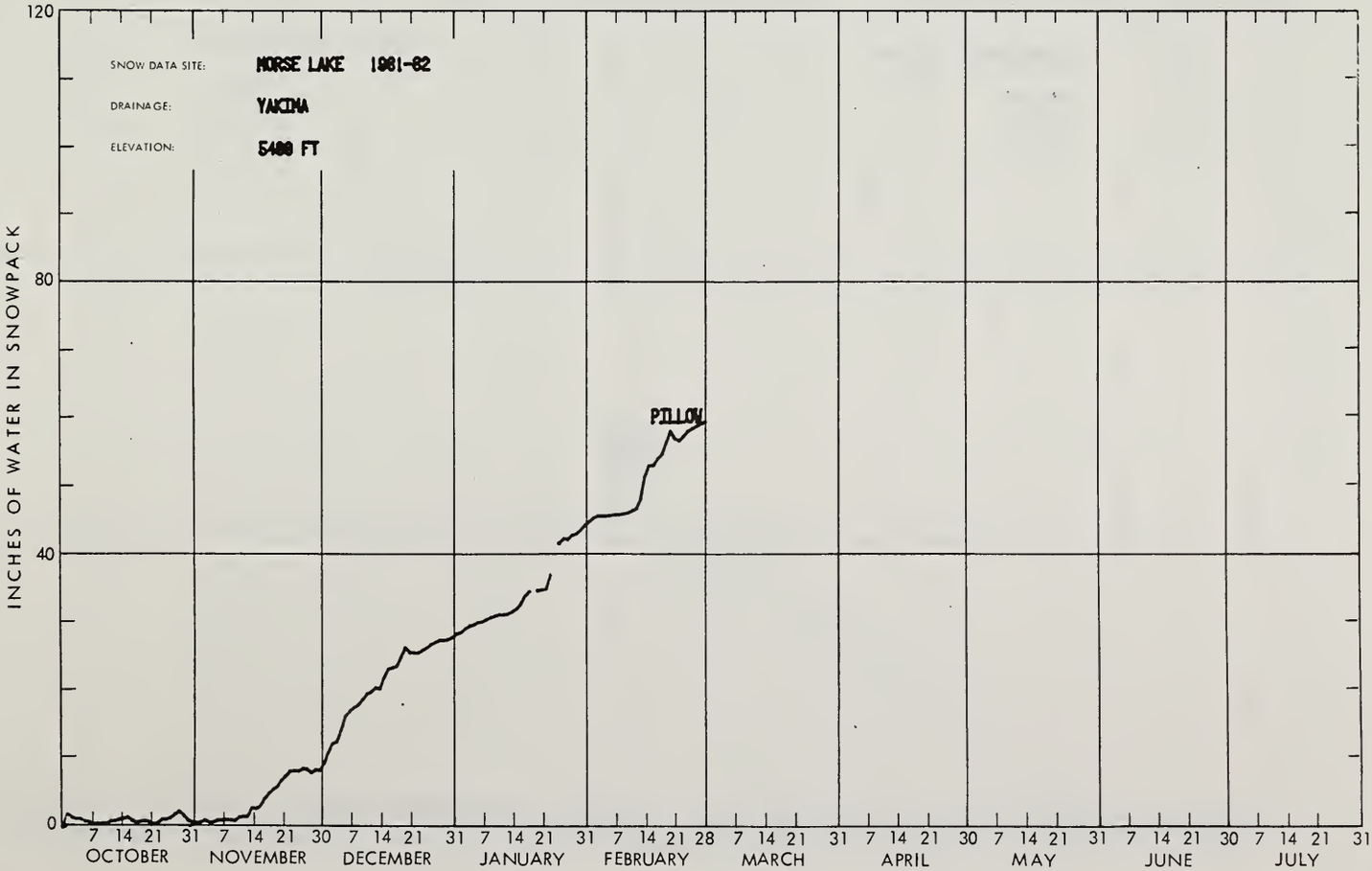

SNOW DATA SITE: BUNCHGRASS MEADOW 1981-82
DRAINAGE: COLUMBIA
ELEVATION: 5800 FT
INCHES OF WATER IN SNOWPACK
0
20
40
60
PILLOW
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

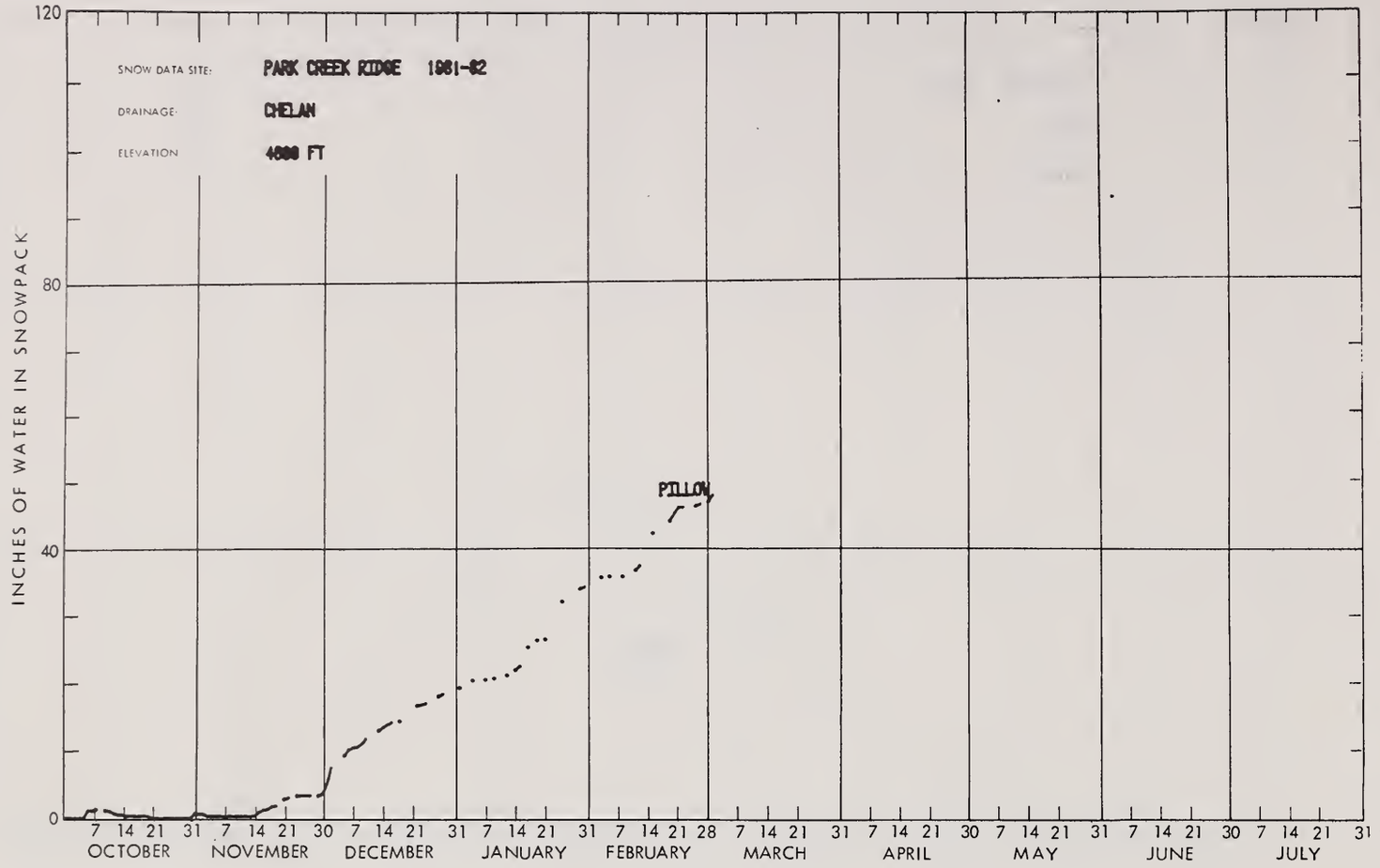

SNOW DATA SITE: CORRAL PASS 1981-82
DRAINAGE: YAKIMA
ELEVATION: 6800 FT
INCHES OF WATER IN SNOWPACK
0
20
40
60
PILLOW
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

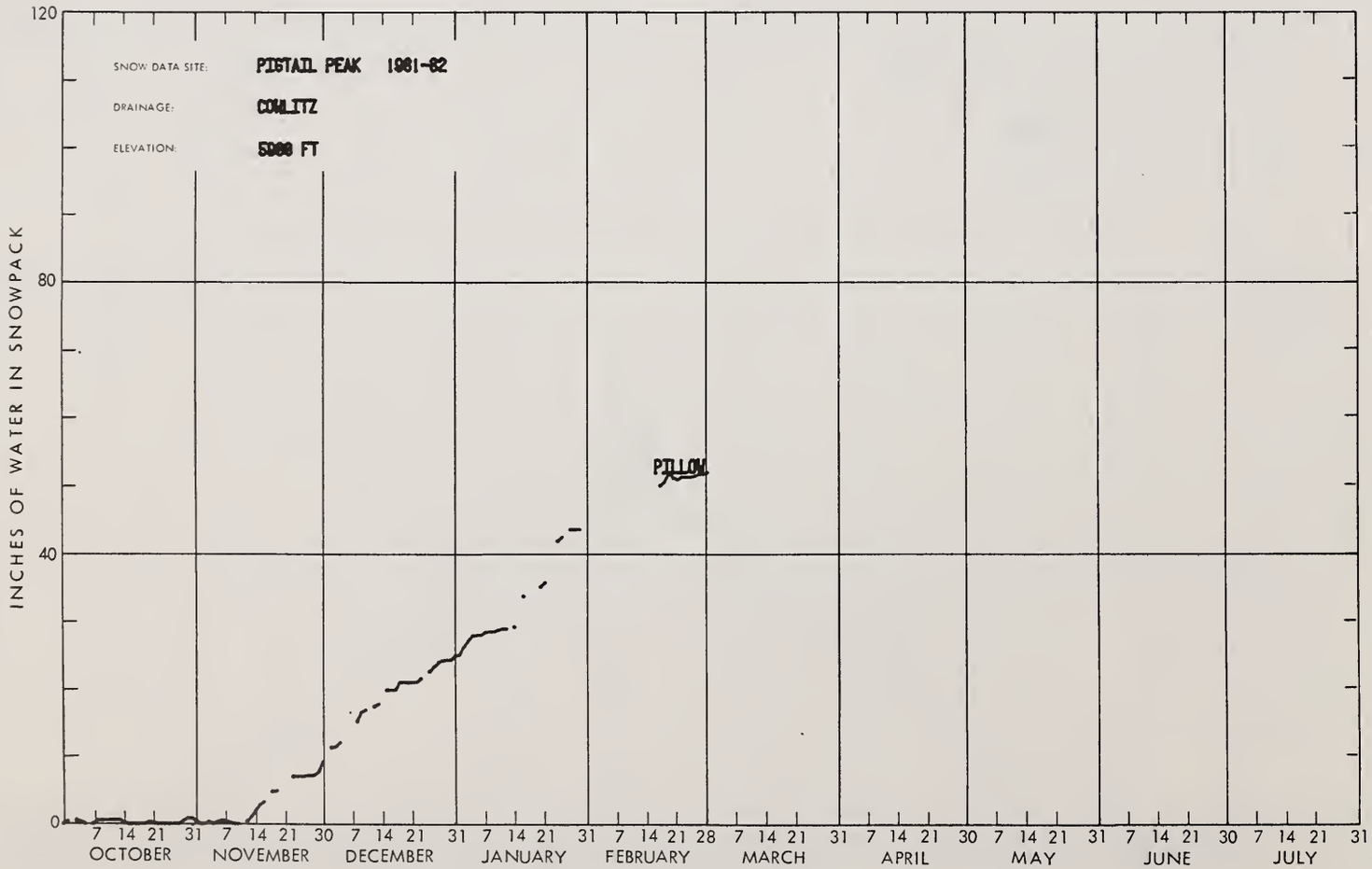

SNOW DATA SITE: COUGAR MOUNTAIN 1981-1982
DRAINAGE: GREEN
ELEVATION: 3200 FT
PILLOW
INCHES OF WATER IN SNOWPACK
0
20
40
60
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

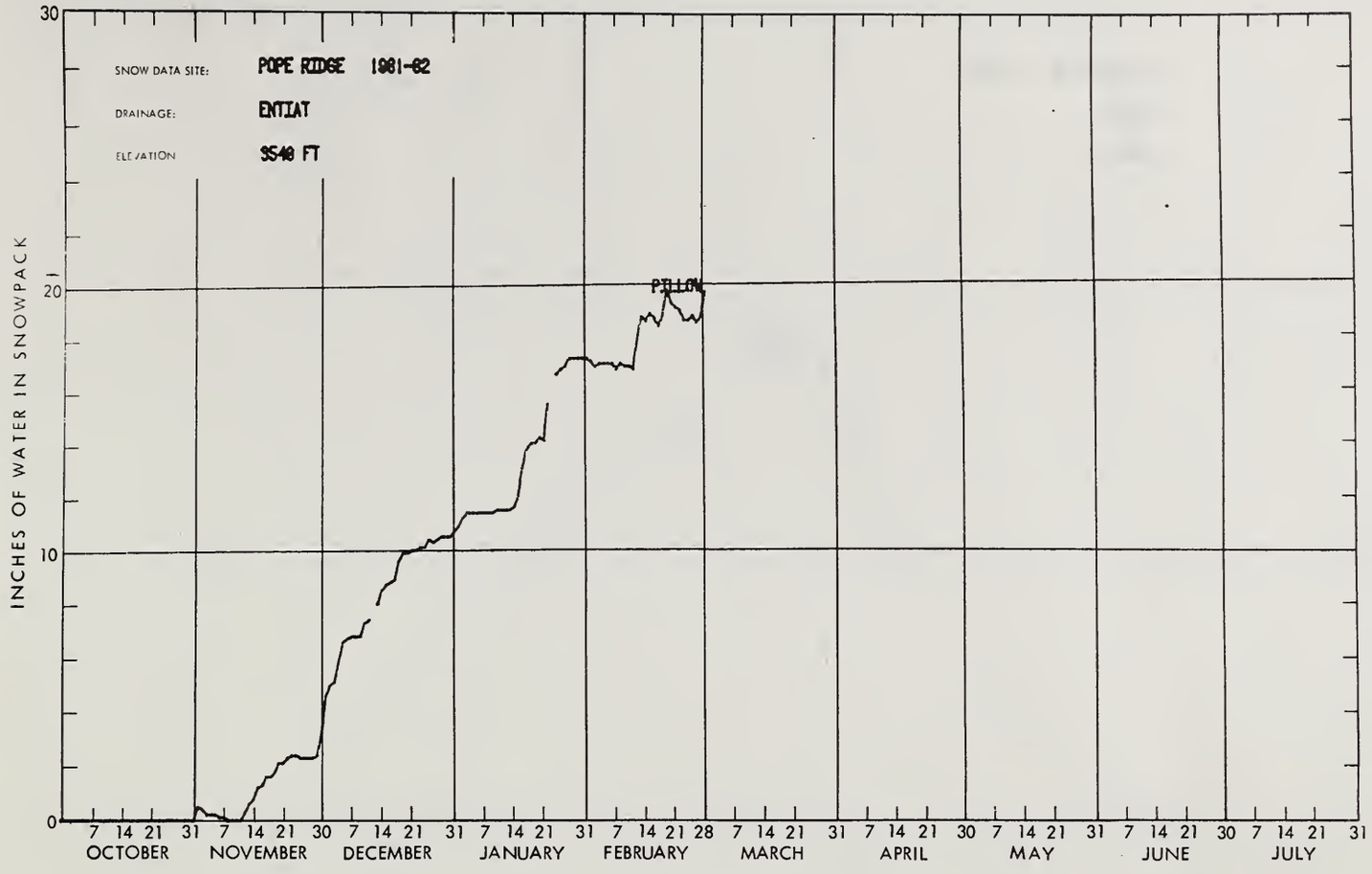

SNOW DATA SITE: GREEN LAKE 1981-82
DRAINAGE: YAKIMA
ELEVATION: 6000 FT
PILLOW
INCHES OF WATER IN SNOWPACK
0
20
40
60
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

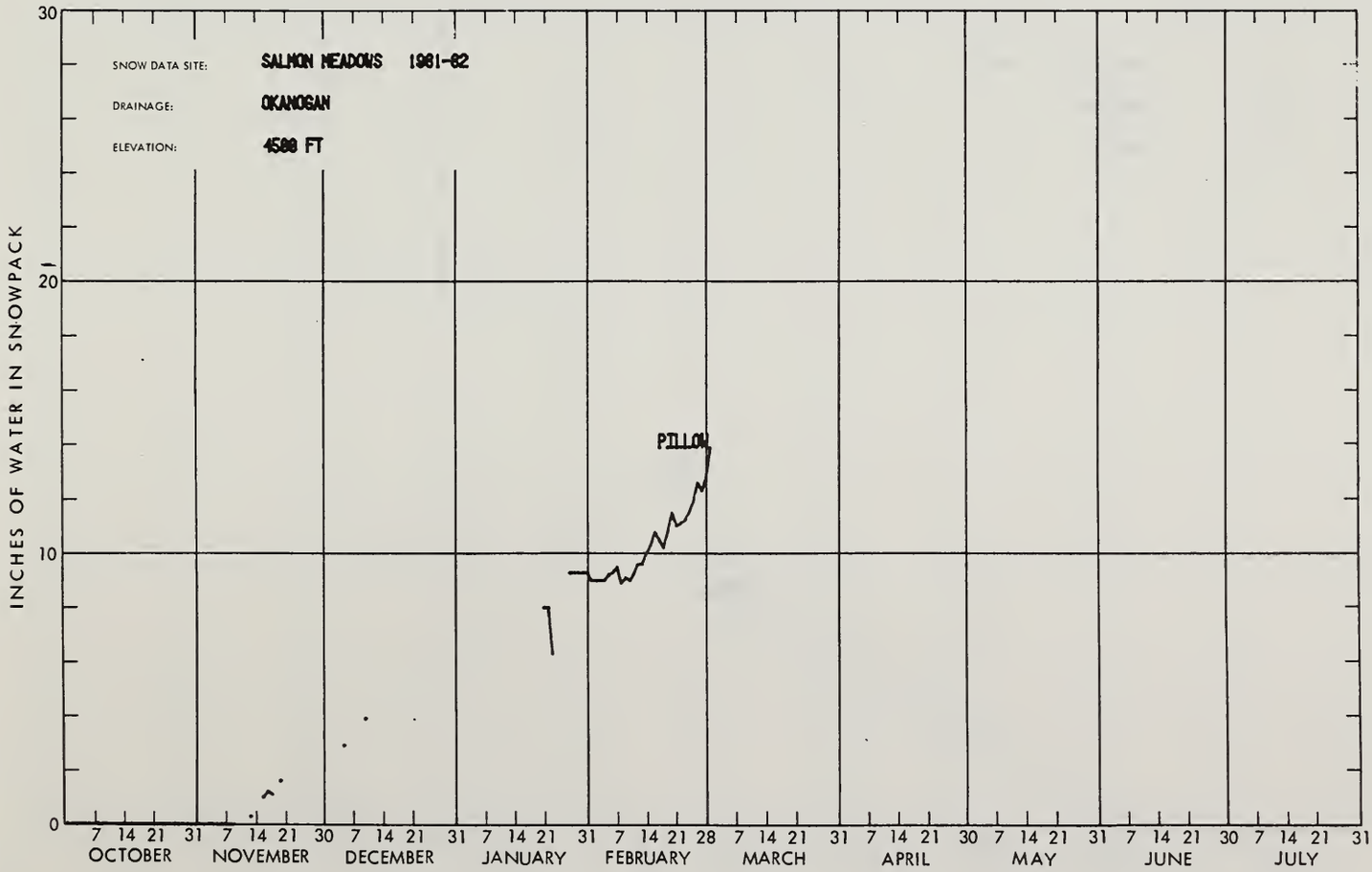

SNOW DATA SITE: JUNE LAKE 1981-82
DRAINAGE: LEWIS
ELEVATION: 9200 FT
INCHES OF WATER IN SNOWPACK
120
80
40
0
PILLOW
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

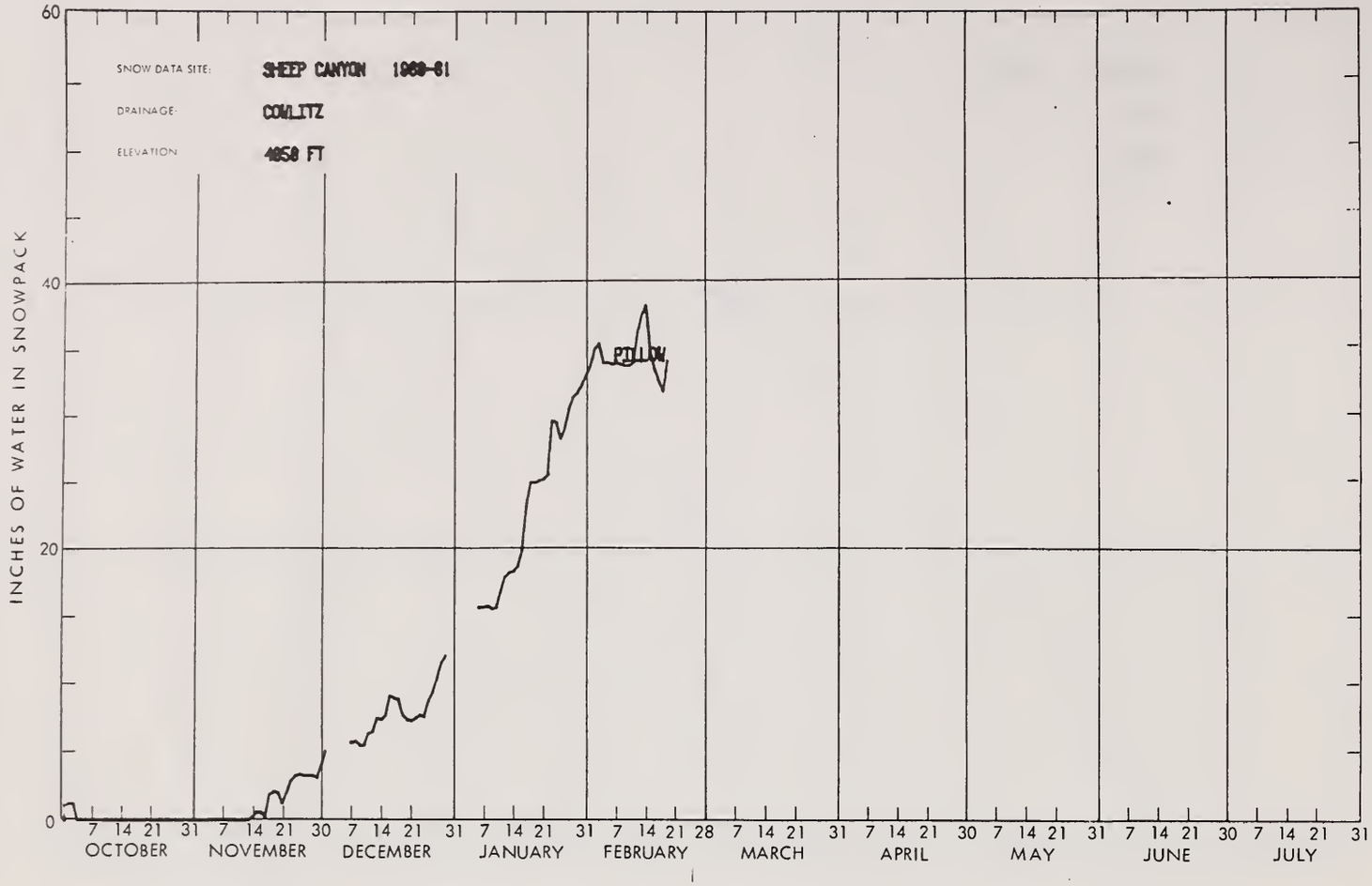

SNOW DATA SITE: MORSE LAKE 1981-82
DRAINAGE: YAKIMA
ELEVATION: 5400 FT
INCHES OF WATER IN SNOWPACK
120
80
40
0
PILLOW
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

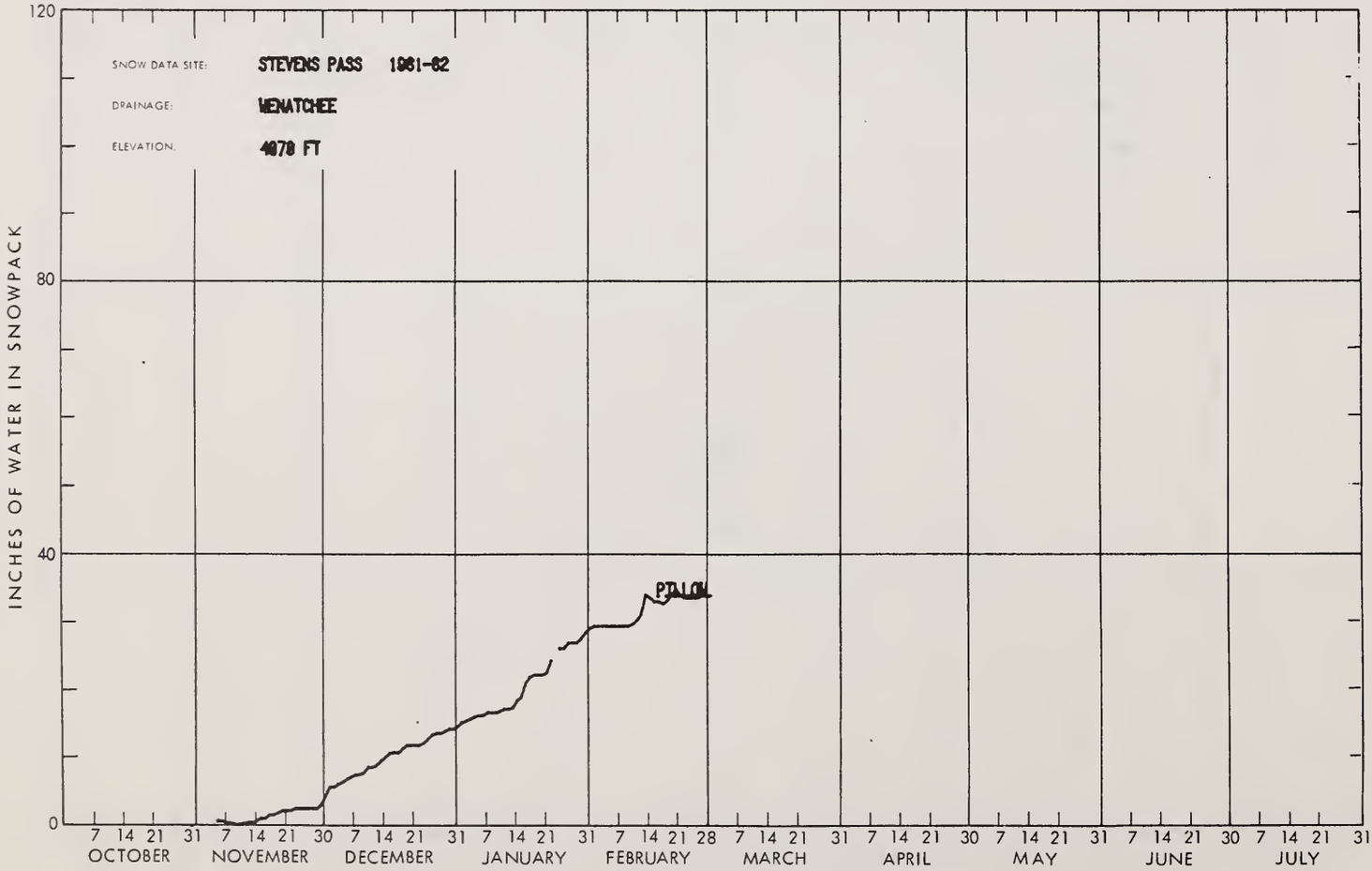

SNOW DATA SITE: PARK CREEK RIDGE 1981-82
DRAINAGE: CHELAN
ELEVATION: 4600 FT
PILLOW
INCHES OF WATER IN SNOWPACK
120
80
40
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

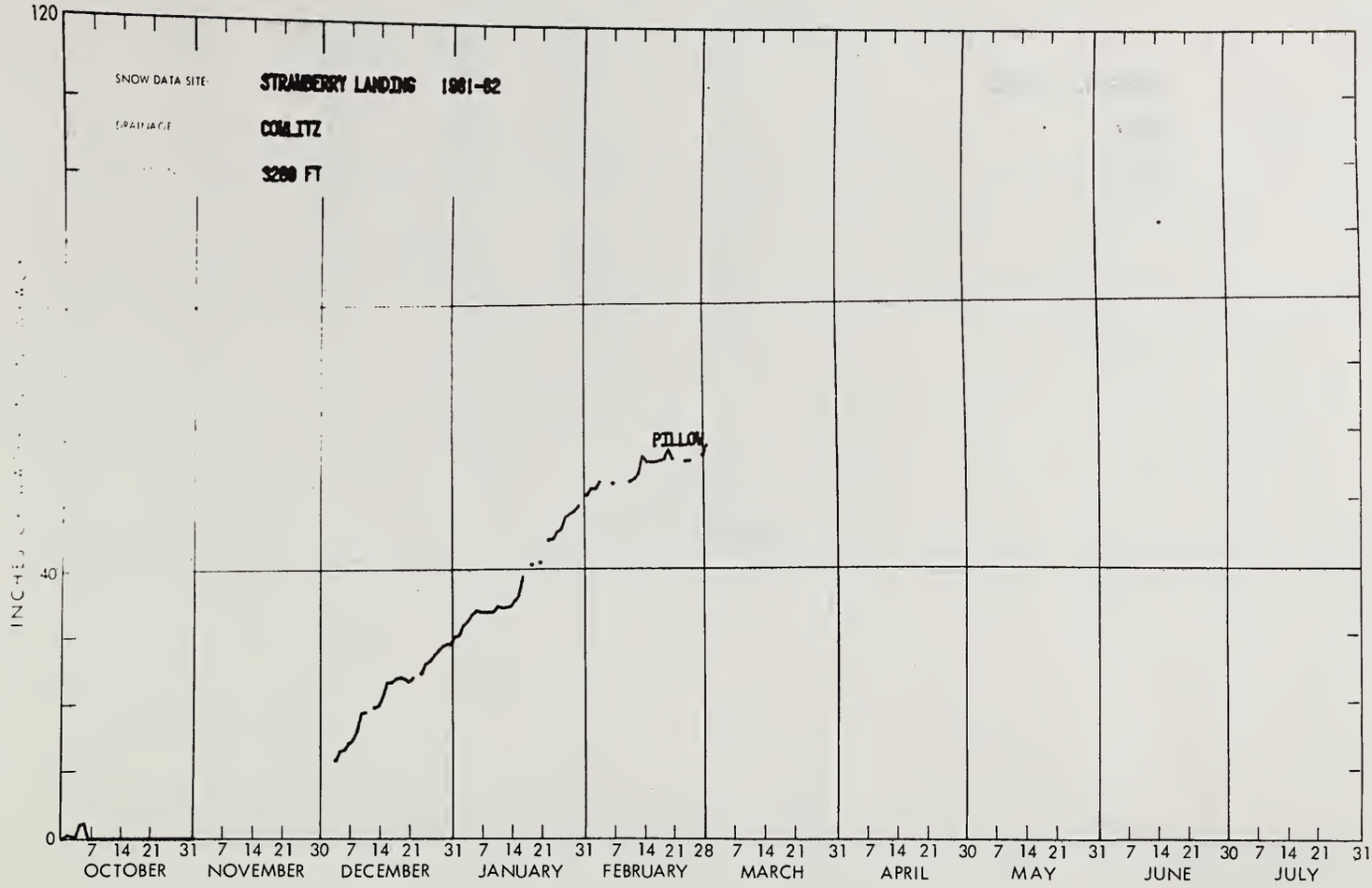

SNOW DATA SITE: PIGTAIL PEAK 1981-82
DRAINAGE: COWLITZ
ELEVATION: 5000 FT
PILLOW
INCHES OF WATER IN SNOWPACK
120
80
40
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

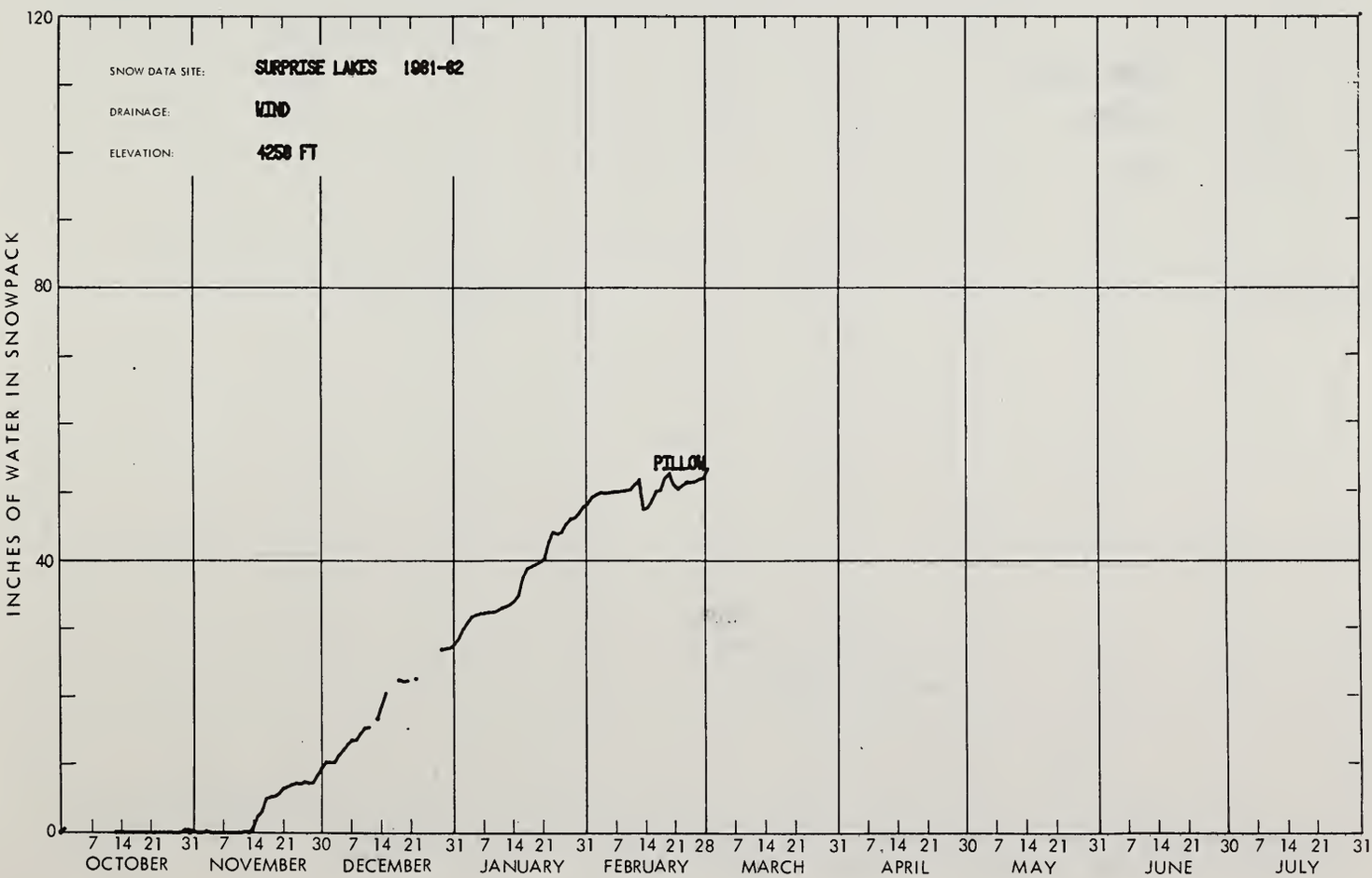

SNOW DATA SITE: POPE RIDGE 1981-82
DRAINAGE: ENTIAT
ELEVATION 9540 FT
PILLOW
INCHES OF WATER IN SNOWPACK
0
10
20
30
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

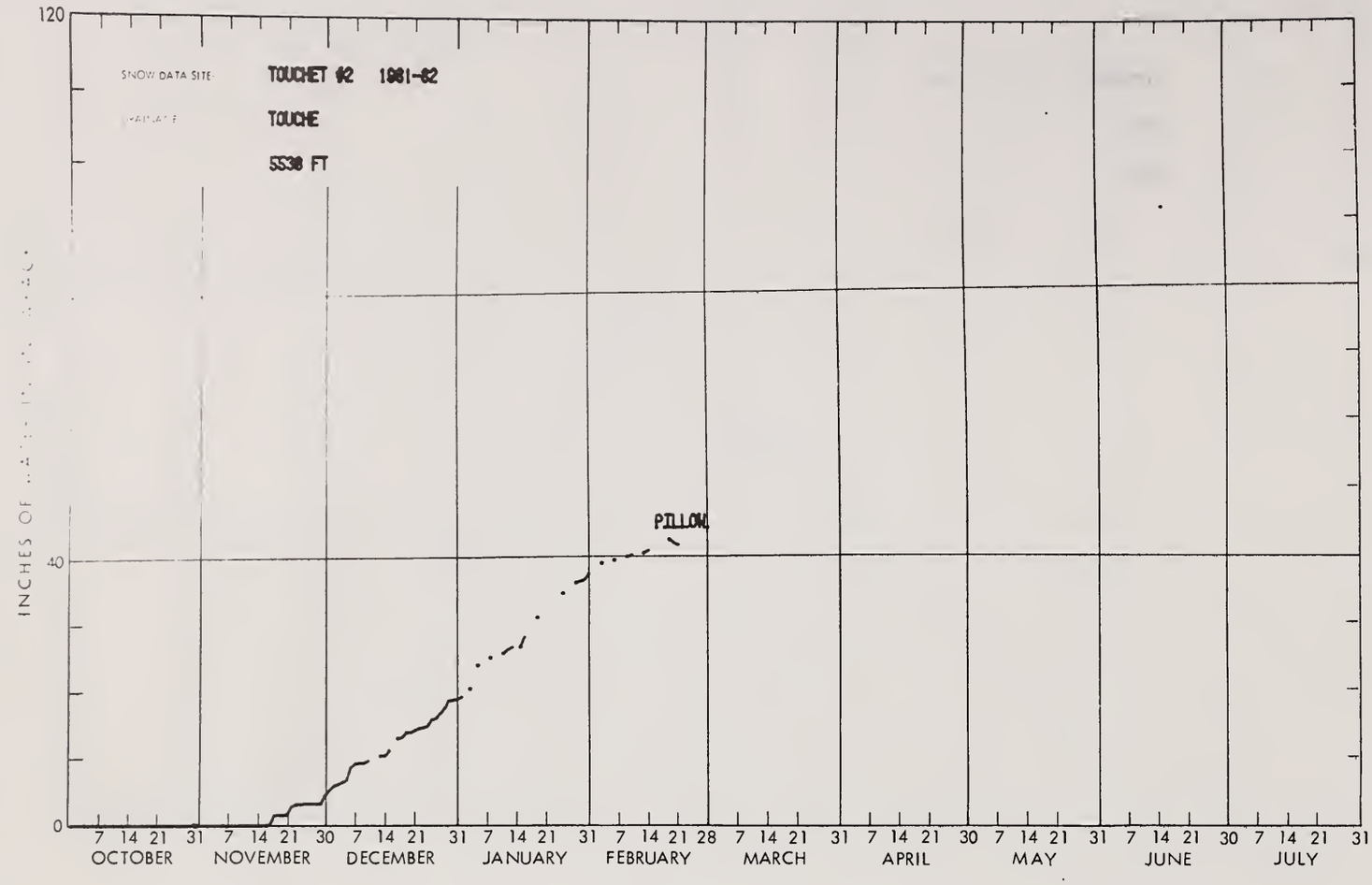

SNOW DATA SITE: SALMON MEADOWS 1981-82
DRAINAGE: OKANOGAN
ELEVATION: 4500 FT
PILLOW
INCHES OF WATER IN SNOWPACK
0
10
20
30
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

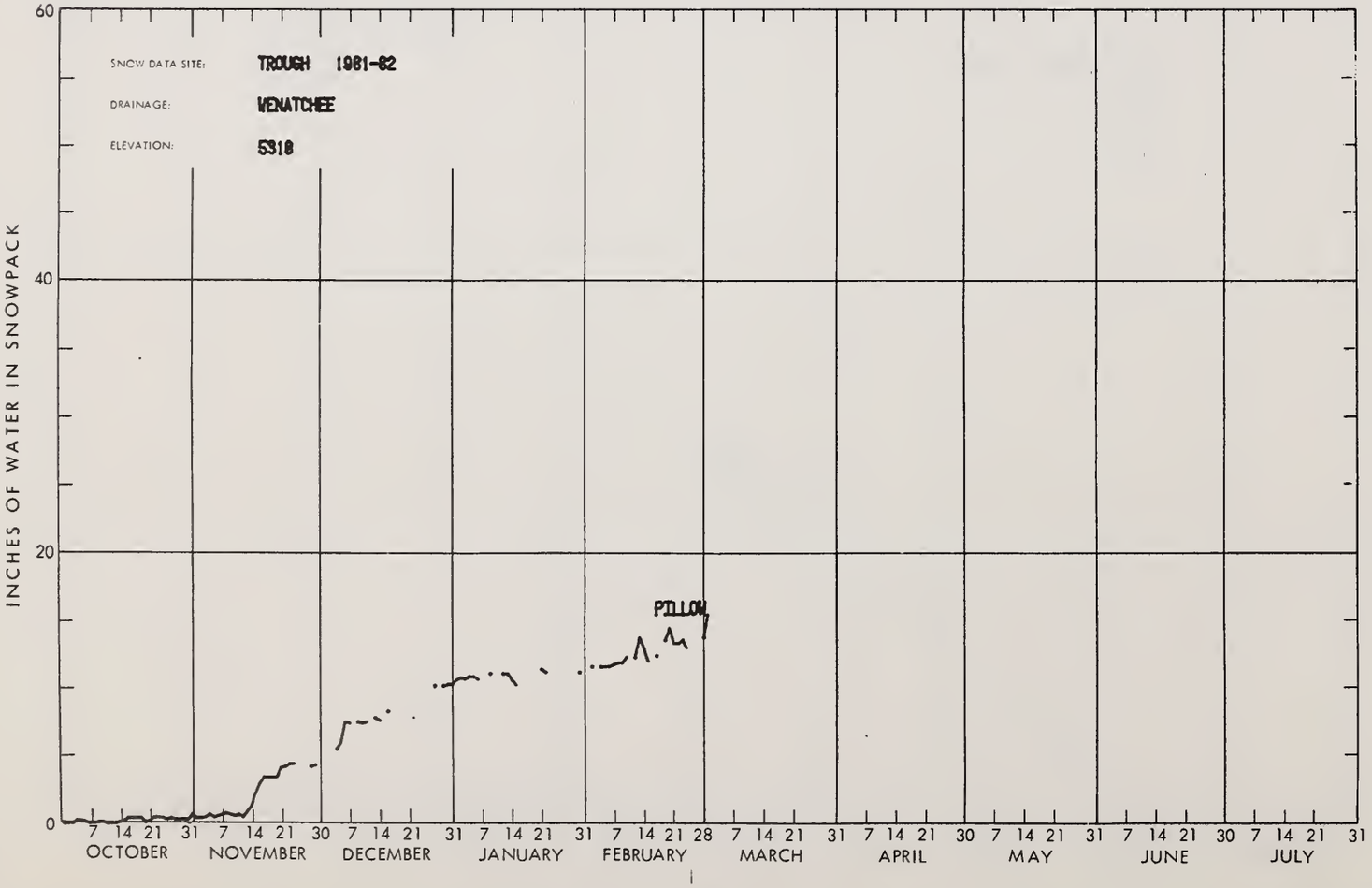

SNOW DATA SITE: SHEEP CANYON 1960-61
DRAINAGE: COWLITZ
ELEVATION: 4850 FT
PILLOW
INCHES OF WATER IN SNOWPACK
0
20
40
60
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

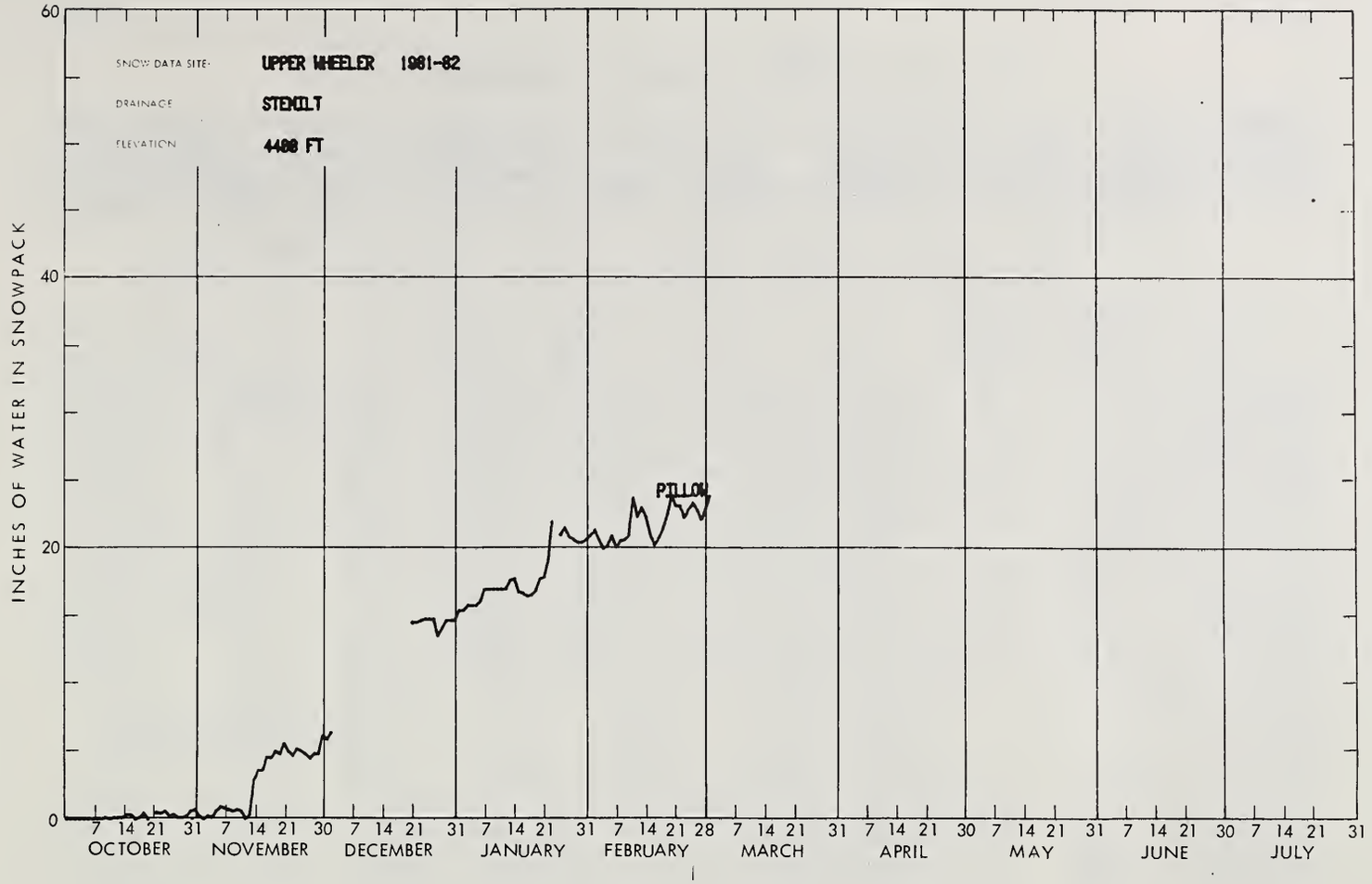

SNOW DATA SITE: STEVENS PASS 1961-62
DRAINAGE: WENATCHEE
ELEVATION: 4070 FT
PILLOW
INCHES OF WATER IN SNOWPACK
0
40
80
120
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

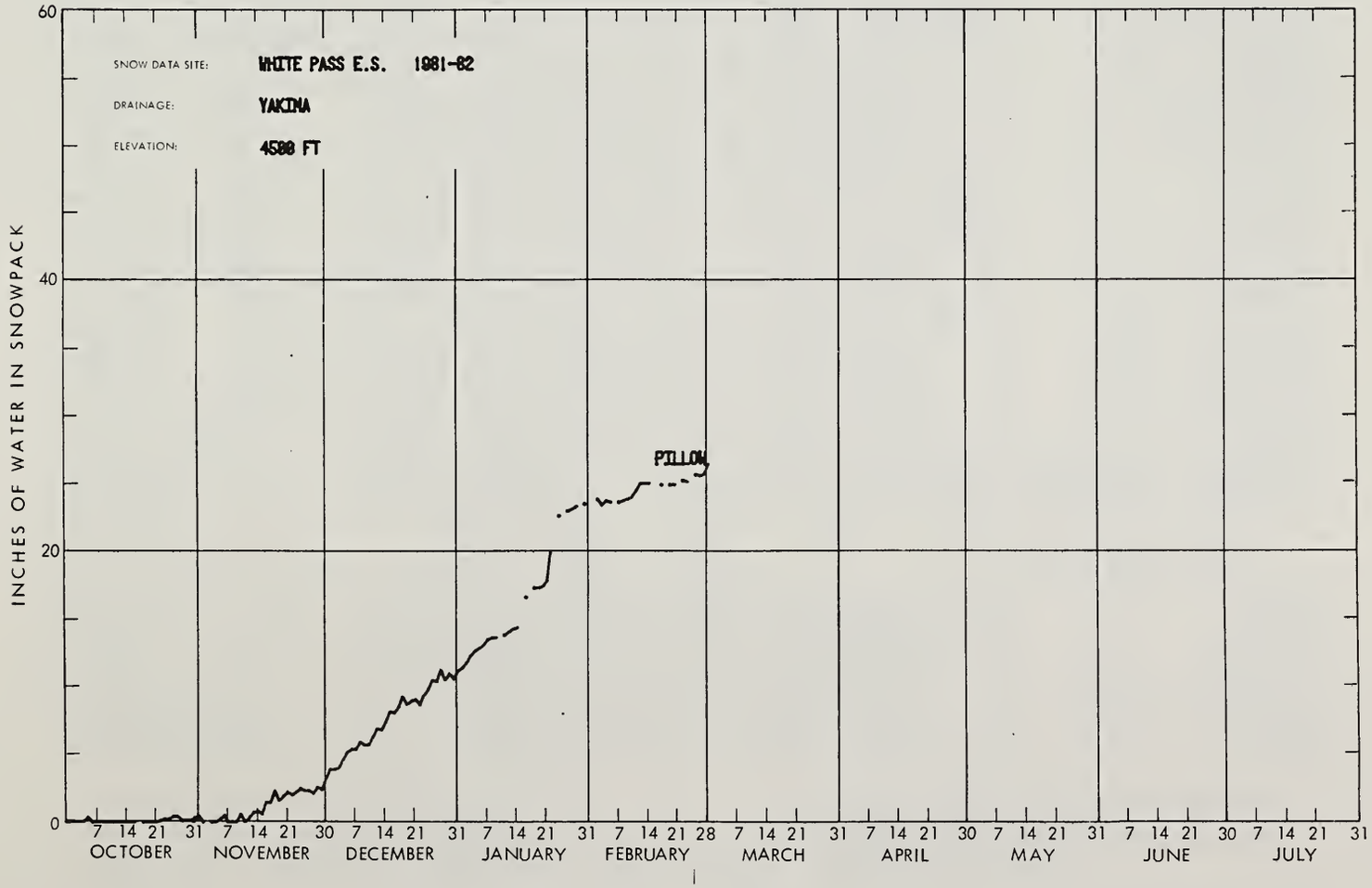

SNOW DATA SITE: STRAWBERRY LANDING 1981-82
DRAINAGE: COMLITZ
ELEVATION: 3280 FT
PILLOW
INCHES OF WATER IN SNOWPACK
120
40
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY


SNOW DATA SITE: SURPRISE LAKES 1981-82
DRAINAGE: WIND
ELEVATION: 4250 FT
PILLOW
INCHES OF WATER IN SNOWPACK
120
80
40
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY


SNOW DATA SITE:
TOUCHET #2 1981-82
DRAINAGE:
TOUCHE
ELEVATION:
5530 FT
INCHES OF
PILLOW
120
40
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER
NOVEMBER
DECEMBER
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY


SNOW DATA SITE:
TROUGH 1981-82
DRAINAGE:
WENATCHEE
ELEVATION:
5310
INCHES OF WATER IN SNOWPACK
PILLOW
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER
NOVEMBER
DECEMBER
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY


SNOW DATA SITE: UPPER WHEELER 1981-82
DRAINAGE STEMILT
ELEVATION 4400 FT
PILLOW
INCHES OF WATER IN SNOWPACK
0
20
40
60
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY


SNOW DATA SITE: WHITE PASS E.S. 1981-82
DRAINAGE: YAKIMA
ELEVATION: 4500 FT
PILLOW
INCHES OF WATER IN SNOWPACK
0
20
40
60
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

SNOW DATA TO MARCH 1, 1982 - APPENDIX 1

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
UPPER COLUMBIA DRAINAGE							
PEND OREILLE RIVER							
Baree Creek	15B11	5500	2/25	114	45.4	26.0	43.8
Baree Midway	15B16	4600	2/25	90	34.1	14.8	34.0
Baree Trail	15B15	3800	2/25	25	8.6	0.5	10.0
Benton Meadow	16A02	2344	2/25	19	7.4	0.0	6.4
Benton Spring	16A03	4900	2/25	45	15.8	8.8	17.7
Boyer Mountain	17A02	5250	2/25	60	20.2	13.8	23.1
Brush Creek Timber	14A13	5000	2/25	33	10.0	4.5	9.5
Chewelah	17A04	4923	2/27	44	13.1	6.6	14.3
Heart Lake Trail	14C10	4800	2/25	58	20.8	7.6	21.1
Hoodoo Basin	15C10	6000	2/25	137	49.9	30.6	45.4
Hoodoo Creek	15C01	5900	2/25	130	47.5	25.8	42.0
Lookout	15B02	5250	2/25	85	30.6	16.6	31.0
Mosquito Ridge	16A04A	5100	2/25	106	38.3	23.3	34.6
Nelson	2D04-Can	3050	3/1	50	16.1	9.0	14.3*
Schweitzer Bowl	16A06	4500	3/2	78	31.2	-	28.1
Schweitzer Ridge	16A05	6100	3/2	118	44.6	29.2	40.3
Winchester Creek	17A03	2970	2/25	29	9.3	0.4	10.6
KETTLE RIVER							
Barnes Creek	2B06-Can	5300	2/26	61	19.1	13.5	17.3*
Big White Mtn.	2E03-Can	5500	3/2	61	18.1	13.6	17.0*
Boulder Road	18A02	1450	2/26	14	4.0	0.0	4.5
Butte Creek	18A03	4070	2/26	28	7.5	5.3	8.5
Cabin Creek	18A08	3170	2/26	24	7.1	5.8	7.2
Carmi	2E02-Can	4100	3/2	22	5.6	3.7	6.1*
Farron # 1	2B02-Can	4000	2/26	40	12.5	9.4	12.1*
Farron # 2	2B02A-Can	4000	2/26	41	12.8	9.8	11.4*
Goat Creek	18A04	3595	2/26	22	6.4	4.6	6.4
Graystoke Lake	2F04-Can	5950	3/1	48	12.0	5.8	14.1*
Monashee Pass	2E01-Can	4500	2/26	47	13.6	9.6	12.4*
Snow Caps Creek	18A05	2150	2/26	14	4.4	0.0	4.8
Snow Caps Trail	18A06	2720	2/26	21	5.9	3.6	5.8
Summit G.S.	18A07	4600	2/26	25	6.4	4.1	7.3
Trapping Creek Lower	2E05-Can	3050	3/2	20	5.0	1.7	5.1*
Trapping Creek Upper	2E04-Can	4450	3/2	35	10.2	6.3	9.1*
COLVILLE RIVER							
Baird	17A06	3215	2/26	22	6.5	0.0	6.7
Carlson	18A09	2885	2/27	Trace	0.0	0.0	4.2
Chewelah	17A04	4925	2/27	44	13.1	6.6	14.3
Stranger Mountain	17A05	4990	2/27	32	10.4	2.0	12.5
Togo	18A10	3370	2/27	26	9.2	0.6	10.3

\# Average based on 1963-77 average
* Average for years of record

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO MARCH 1, 1982 - APPENDIX 2

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
SPOKANE RIVER							
Above Burke	15B08	6100	2/25	51	18.1	9.0	22.9
Copper Ridge	16B02	4800	2/24	62	25.2	7.6	25.1
Forty-nine Meadows	15B03	5000	2/26	72	23.8	11.9	27.2
Fourth of July Summit	16B03	3100	2/25	23	6.4	0.0	8.9
Kellogg Peak	16B05A	5560	2/25	72	27.3	8.9	28.2
Lookout	15B02	5250	2/25	85	30.6	16.6	31.0
Lost Lake	15B14A	6000	2/26	147	49.7	25.7	50.0
Lower Sands Creek	16B01	3400	2/24	45	15.2	4.1	17.5
Mosquito Ridge	16A04A	5110	2/25	106	38.3	23.3	34.6
Roland Summit	15B05A	5200	2/25	93	30.0	11.4	31.3
Sherwin	16C01	3200	2/26	40	14.2	2.6	13.3
Sunset	15B09A	5600	2/25	112	39.1	22.9	32.6
OKANOGAN RIVER							
Aberdeen Lake	1F01A-Can	4300	2/26	27	7.4	3.1	6.0*
Blackwall Mountain	2G03-Can	6250	2/25	91	32.0	23.1	30.7*
Bouleau Lake	2F21-Can	4580	2/27	55	14.6	8.8	12.0*
Brenda Mine	2F18-Can	4800	2/25	40	11.1	7.7	12.2*
Brookmere	1C01-Can	3200	2/28	33	9.2	6.6	8.8*
Enderby	1F04-Can	6250	2/26	124	45.7	25.7	31.8*
Esperon Creek Lower	2F15-Can	4400	2/27	41	11.5	7.4	10.4*
Esperon Creek Middle	2F14-Can	4700	2/27	47	13.9	9.1	13.0*
Esperon Creek Upper	2F13-Can	5490	2/27	54	16.1	10.7	15.6*
Grayback Res.	2F08-Can	5225	2/26	33	5.8	4.9	7.8*
Graystoke Lake	2F04-Can	5950	3/1	48	12.0	5.8	14.1*
Hamilton Hill	2G06-Can	4900	2/19	46	12.2	9.4	14.1*
Harts Pass	20A05A	6500	2/23	131	40.7	27.9	41.1
Horseshoe Basin +	19A05a	7000	2/27	56	16.8	13.4	16.3
Isintok Lake	2F11-Can	5510	2/27	26	7.1	2.6	7.4*
Lightning Lake	3D02-Can	4000	2/19	41	13.4	4.6	9.9*
Lost Horse Mountain	2G04-Can	6300	3/1	31	7.3	5.7	8.3*
Loup Loup	19A07	4650	2/24	35	9.8	7.8	8.8
McCulloch	2F03-Can	4200	2/28	27	7.0	4.3	6.3*
Missezula Mountain	2G05-Can	5100	2/19	34	8.7	4.3	8.8*
Mission Creek	2F05-Can	6000	3/1	61	18.9	10.9	17.0*
Monashee Pass	2E01-Can	4500	2/26	47	13.6	9.6	12.4*
Mount Kobau	2F12-Can	5950	2/27	42	12.1	8.5	10.6*
Muckamuck +	19A09a	6390	2/27	62	18.6	16.5	14.7
Mutton Creek No. 1	19A01	5700	2/24	50	15.2	9.7	12.7
Mutton Creek No. 2SP	19A11SP	6000	2/24	-	7.8	4.6	10.0
Oyama Lake	2F19-Can	4400	2/26	24	6.3	2.9	6.3*
Paysayten +	20A28a	4300	2/27	55	16.5	9.0	16.9
Postill Lake	2F07-Can	4500	2/26	29	8.0	5.3	7.4*
Rusty Creek	19A03	4000	2/24	25	6.1	6.2	6.6
Salmon Meadows	19A02	4500	2/24	38	9.6	9.6	9.1

\# Average based on 1963-77 average
* Average for years of record
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS-PORTLAND OREGON 1973

SNOW DATA TO MARCH 1, 1982 - APPENDIX 3

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
OKANOGAN RIVER (Cont.)							
Silver Star Mountain	2F10-Can	6050	2/27	90	28.7	16.8	23.8*
Starvation Mtn +	19A10a	6750	2/27	60	16.8	18.5	17.5
Summerland Reservoir	2F02-Can	4200	2/27	31	9.5	5.5	8.8*
Sunday Summit	2G01A-Can	4300	2/19	23	5.9	2.0	5.6*
Touts Coulee	19A06	2845	2/25	12	3.6	3.7	3.5
Trout Creek	2F01-Can	4700	3/1	23	6.8	2.2	6.5*
Vaseux Creek	2F20-Can	4600	3/1	27	6.0	3.9	6.0*
White Rocks Mountain	2F09-Can	6000	2/24	64	21.5	11.7	19.3*
METHOW RIVER							
Harts Pass	20A05A	6500	2/23	131	40.7	27.9	41.1
Horseshoe Basin +	19A05a	7000	3/27	56	16.8	13.4	16.3
Loup Loup	19A07	4650	2/24	35	9.8	7.1	8.8
Mutton Creek No. 1	19A01	5700	2/24	50	15.2	9.7	12.7
Mutton Creek No. 2 SP	19A11SP	6000	2/24	-	7.8	4.6	10.0
Rusty Creek	19A03	4000	2/24	25	6.1	6.2	6.6
Salmon Meadows	19A02	4500	2/24	38	9.6	9.6	9.1
War Creek Pass +	20A31a	6500	2/27	132	39.6	28.8	42.9
CHELAN LAKE BASIN							
Cloudy Pass +	20A22a	6500		Not Measured		31.2	35.0
Little Meadows +	20A24a	5275	2/27	136	53.4	23.4	37.6
Lyman Lake	20A23A	5900	2/27	162	63.7	39.6	49.8
Mirror Lake	20A39	5600	3/4	113	38.7	20.6	New
Park Creek Ridge	20A12A	4600	2/27	129	59.7	26.1	44.2
Rainy Pass	20A09	4780	2/25	111	39.6	23.0	37.0
War Creek Pass +	20A31a	6500	2/27	132	39.6	28.8	42.9
ENTIAT RIVER							
Blue Creek G.S.	20B28a	5425	2/26	132	43.6	24.4	33.8
Brief	20B19	1600	2/23	25	9.0	0.0	7.5
Entiat Meadows +	20A33a	4540	2/26	138	45.5	28.4	57.7
Entiat River Trail +	20A34a	3325	2/26	70	24.9	17.7	25.6
Four Mile Ridge +	20B27a	6800	2/26	96	21.7	21.5	28.4
Fox Camp +	20A36a	6510		Not Measured		42.3	52.9
Pope Ridge	20B20	3540	2/24	58	20.6	10.7	18.2
Pugh Ridge +	20A32a	6725	2/26	109	36.0	28.1	40.8
Shady Pass	20A37	6200	2/24	92	30.4	17.6	23.7
Snow Brushy +	20A35a	3910	2/26	117	41.5	23.5	35.8
Tommy Creek +	20B21a	4900	2/26	76	25.1	14.5	26.5

\# Average based on 1963-77 average
* Average for years of record
\+ Snow water equivalent estimated from aerial stadia observation

SOA-SCS-PORTLAND OREGON 1973

SNOW DATA TO MARCH 1, 1982 - APPENDIX 4

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
WENATCHEE RIVER							
Berne-Mill Creek	21B23	2925	2/25	79	31.0	12.5	26.0
Berne-Mill Creek New SP	21B41	3240	2/25	69	27.8	6.9	24.0
Blewett Pass No. 2	20B02	4270	2/23	42	16.4	4.4	15.0
Chiwaukum G.S.	20B16	1810	2/25	35	12.6	5.7	11.6
Fish Lake	21B04	3371	2/25	97	40.4	12.6	31.1
Lake Wenatchee	20B05	1970	2/25	46	16.5	5.6	14.4
Leavenworth R.S.	20B17	1127	2/25	9.3	3.7	0.0	4.4
Lyman Lake	20A23A	5900	2/27	162	63.7	39.6	49.8
Merritt	20B18	2140	2/25	48	18.2	5.7	15.8
Stevens Pass	21B01	4070	2/25	121	49.0	16.5	48.0
Stevens Pass Sand Shed	21B45	3700	2/25	96	38.4	10.0	34.9
SQUILCHUCK CREEK							
Beehive Springs	20B03	4400	2/24	19	6.3	2.7	8.1
Scout-A-Vista	20B04	3400	2/24	23	8.2	4.8	8.2
STEMILT CREEK							
Jump-Off	20B08	4450	2/25	27	9.2	1.8	8.4
Stemilt Slide	20B06	5000	2/24	42	13.3	6.7	13.1
Upper Wheeler	20B07	4400	2/24	22	8.6	1.3	9.7
COLOCKUM CREEK							
Colockum Creek Upper	20B22	5300	2/25	33	11.7	3.6	13.3
Colockum Creek Lower	20B23	4300	2/25	24	8.5	3.5	10.1
Trough # 2	20B25SP	5310	2/25	38	14.0	6.0	New
YAKIMA RIVER							
Ahtanum R.S.	21C11	3100	2/22	16	6.9	3.1	6.7
Big Boulder Creek	21B09	3200	2/25	63	25.1	4.8	19.3
Blewett Pass No. 2	20B02	4270	2/23	42	16.4	4.4	15.0
Bumping Lake	21C08	3450	2/12	48	8.8	4.3	14.8
			2/26	37	12.5	3.3	20.4
Bumping Lake New	21C36	3400	2/12	60	16.5	6.1	18.5
			2/26	48	17.8	6.5	20.2
Cayuse Pass	21C06	5300	3/5	203	86.9	28.5	71.0
Colockum Pass	20B09	5370	2/23	45	15.9	6.6	14.2
Cooke Creek	20B10	4123	2/23	13	4.5	0.0	5.7
Corral Pass	21B13	6000		Not Measured		16.6	35.1
Fish Lake	21B04	3371	2/25	97	40.4	12.6	31.1
Green Lake	21C10	6000	2/22	95	31.3	17.5	29.6
Grouse Camp	20B11	5385	2/24	49	18.9	8.6	15.5
High Creek	20B12	2930	2/24	17	6.1	2.5	6.1
Joe Lake	21B46a	4624	2/26	177	76.1	25.9	53.5

Average based on 1963-77 average

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO MARCH 1, 1982 - APPENDIX 5

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
YAKIMA RIVER (Cont.)							
Lake Cle Elum	21B14M	2200	2/10	29	11.6	2.0	10.5
			2/24	32	12.7	2.9	9.2
Lemah Creek +	21B47a	3327	2/26	120	51.6	15.9	41.9
Manashtash	20C01	3935	2/25	12	4.3	0.0	4.3
Morse Lake	21C17	5400	2/25	133	57.7	27.8	47.2
Nanum	20B13	3875	2/24	19	5.6	2.5	9.8
Olallie Meadows	21B02	3625	2/26	94	44.1	6.7	44.8
Satus Pass	20D01	4030	2/24	20	7.4	0.0	9.1
Stampede Pass SP	21B10	3860	2/16	108	48.1	8.9	36.2
			2/22	105	51.4	11.0	35.7
Trail Creek	20B14	3360	2/23	Trace	0.0	0.0	2.6
Tunnel Avenue	21B08	2450	2/9	57	20.5	3.0	21.4
			2/24	65	24.9	5.7	21.6
Van Epps Pass +	20B26a	5925		Not Measured		27.3	43.0
Walters Flat	20B15	3360	2/24	17	6.6	4.3	7.1
Waptus Lake +	21B49a	3024	2/26	117	50.3	15.9	41.4
White Pass (E. Side)	21C28	4500	2/11	76	24.2	3.5	21.0
			2/25	68	25.7	5.7	23.1
AHTANUM CREEK							
Ahtanum R.S.	21C11	3100	2/22	16	6.9	3.1	6.7
Green Lake	21C10	6000	2/22	95	31.3	17.5	29.6
L O W E R C O L U M B I A D R A I N A G E							
ASOTIN CREEK							
Spruce Springs	17C04	5700	2/22	63	22.9	11.4	22.6
MILL CREEK							
Homestead	17C01	4030	2/24	30	10.6	0.0	8.2
Martin Springs	17C02	4400	2/24	41	15.2	0.0	12.1
High Ridge	18D19	4150	3/1	87	36.1	13.1	29.4
KLICKITAT RIVER							
Satus Pass	20D01	4030	2/24	20	7.4	0.0	9.1
LEWIS RIVER							
June Lake	22C05	3200	3/1	SNOTEL	25.5	-	New
Lone Pine Shelter	21C26	3800	3/1	SNOTEL	45.0	-	36.2
Surprise Lakes	21C13A	4250	3/1	SNOTEL	53.5	-	44.2

\# Average based on 1963-77 average
\+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO MARCH 1, 1982 - APPENDIX 6

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
COWLITZ RIVER							
Cayuse Pass	21C06	5300	3/5	203	86.9	28.5	71.0
White Pass (E.Side)	21C28	4500	2/11	76	24.2	3.5	21.0
			2/25	68	25.7	5.7	23.1
Potato Hill	21C14	4500		SNOTEL	-	5.8	31.3
Strawberry Landing	22C08SP	3280	2/28	SNOTEL	57.3	6.6	New
PUGET SOUND DRAINAGE							
WHITE RIVER							
Cayuse Pass	21C06	5300	3/5	203	86.9	28.5	71.0
Corral Pass	21B13	6000		Not Measured		16.6	35.1
Morse Lake	21C17	5400	2/25	133	57.7	27.8	47.2
GREEN RIVER							
Airstrip	21B24	1800	2/26	4	2.0	0.0	5.1
Charley Creek	21B25	1200	2/26	0	0.0	0.0	1.2
Cougar Mountain SP	21B42SP	3200	2/26	54	22.8	0.0	20.9
Grass Mtn. No. 2	21B27	2900	2/26	29	11.2	0.3	19.1
Grass Mtn. No. 3	21B28	2100	2/26	9.2	3.2	0.0	5.7
Lester Creek	21B29	3100	2/26	55	19.6	4.9	21.7
Lynn Lake	21B50	4000	2/26	50	22.7	3.6	18.7
Sawmill Ridge	21B31	4700	2/26	83	32.8	10.4	33.7
Snowshoe Butte SP	21B43SP	5000	2/26	132	54.8	14.1	52.7
Stampede Pass SP	21B10	3860	2/16	108	48.1	8.9	36.2
			2/22	105	51.4	11.0	35.7
Twin Camp	21B30	4100	2/26	73	28.8	3.8	22.3
CEDAR RIVER							
City Cabin	21B03	2390	2/26	34	14.1	0.0	17.2
Mt. Gardner	21B21	3300	2/24	46	20.1	0.0	18.7
SNOQUALMIE RIVER							
Alpine Meadow	21B48	3500	2/25	109	48.3	4.4	41.2
Lake Elizabeth	21B19	2900		Not Measured		1.7	37.7
Olallie Meadows	21B02	3625	2/26	94	44.1	6.7	44.8
S. F. Tolt	21B18	1900		Not Measured		0.0	3.2
SKYKOMISH RIVER							
Lake Elizabeth	21B19	2900		Not Measured		1.7	37.7
Stevens Pass	21B01	4070	2/25	121	49.0	16.5	48.0
Stevens Pass Sand Shed	21B45	3700	2/25	96	38.4	10.0	34.9

Average based on 1963-77 average

USDA-SCS-PORTLAND OREGON 1973.

SNOW DATA TO MARCH 1, 1982 - APPENDIX 7

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
SKAGIT RIVER							
Beaver Creek Trail	21A04	2200	2/25	50	16.7	0.0	14.9
Beaver Pass	21A01	3680	2/24	93	33.4	6.2	28.7
Brown Top Ridge +	21A28a	6000	2/23	172	58.2	38.0	61.2
Cloudy Pass +	20A22a	6500		Not Measured		26.7	35.0
Devils Park	20A04	5900	2/23	130	41.8	28.1	41.3
Freezeout Creek Trail	20A01	3500	2/24	45	14.2	1.6	12.7
Freezeout Meadows New	20A38	5000	2/24	83	28.4	16.4	42.5
Granite Creek	20A06	3500	2/25	57	18.8	7.5	19.2
Harts Pass	20A05A	6500	2/23	131	40.7	27.9	41.1
Klesilkwa	3D03A-Can	3700		Late Report		0.0	12.0*
Lyman Lake	20A23A	5900	2/27	186	75.0	35.4	49.8
Meadow Cabins	20A08	1900	2/24	24	8.1	0.0	7.4
New Hozomeen Lake	21A30	2800	2/24	36	11.3	0.0	14.2
New Tashme	3D01A-Can	2500	2/28	33	11.8	0.0	10.8*
Lightning Lake	3D02-Can	4000	2/19	41	13.4	4.6	9.9*
Rainy Pass	20A09	4780	2/25	111	39.6	23.0	37.0
Thunder Basin	20A07	4200	2/24	61	22.2	4.9	20.9
BAKER RIVER							
Dock Butte	21A11A		2/28	174	70.0	15.0	64.2
Easy Pass	21A07A	5200	2/28	198	79.0	37.0	71.3
Jasper Pass	21A06A	5400	2/23	244	98.0	43.0	82.5
Marten Lake	21A09A	3600	2/28	200	80.0	21.0	71.8
Mount Blum +	21A18a	5800	2/28	186	74.0	33.0	62.1
Panorama New	21A26	4300		Not Measured		17.3	66.0
Rocky Creek	21A12A	2100	2/28	100	40.0	0.0	30.4
Schreibers Meadow	21A10A	3400	2/28	170	68.0	3.0	54.5
S. F. Thunder Creek	21A14A	2200	2/28	56	14.0	0.0	11.7
Watson Lakes	21A08A	4500	2/28	160	64.0	21.0	60.9
NOOKSACK RIVER							
Bald Mountain +	21A19a	4400		Not Measured		11.0	46.2
Canyon +	21A20a	5100		Not Measured		49.4	58.1
Glacier Creek	21A23	3700		Not Measured		-	15.1
Panorama New	21A26	4300		Not Measured		17.3	66.0
Twin Lakes +	21A21a	5200		Not Measured		32.8	70.4
O L Y M P I C P E N I N S U L A							
DUNGENESS RIVER							
Deer Park	23B04	5200	3/2	64	23.1	4.7	18.3
MORSE CREEK							
Cox Valley	23B14	4500	2/28	114	41.8	8.6	36.5
ELWHA RIVER							
Hurricane	23B03	4500	2/24	63	20.3	1.9	20.3

\+ Snow water equivalent estimated from aerial stadia observation
\# Average based on 1963-77 average
* Average for years of record

Agencies Assisting with Snow Surveys

GOVERNMENT AGENCIES

Canada:

Ministry of the Environment, Water
Investigations Branch, Victoria, British Columbia

States:

Washington State Department of Ecology
Washington State Department of Natural Resources

Federal:

Department of the Army
  Corps of Engineers
U. S. Department of Agriculture
  Forest Service
U. S. Department of Commerce
  NOAA, National Weather Service
U. S. Department of the Interior
  Bonneville Power Administration
  Bureau of Reclamation
  Geological Survey
  National Park Service

PUBLIC AND PRIVATE UTILITIES

Chelan County P.U.D.
Pacific Power and Light Company
Puget Sound Power and Light Company
Washington Water Power Company

OTHER PUBLIC AGENCIES

Okanogan Irrigation District
Wenatchee Heights Irrigation District

MUNICIPALITIES

City of Tacoma
City of Seattle

Other organizations and individuals furnish valuable information for snow survey reports. Their cooperation is gratefully acknowledged.

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